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EDITED BY

FRANK P. FOSTER, M.D.,

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Original Communications.

A PLEA FOR MODERATELY COLD CLIMATES IN THE TREATMENT OF CONSUMPTION, WITH SPECIAL REFERENCE TO AIKEN, S. C.

By W. H. GEDDINGS, M. D.,
AIKEN, S. C.

Under the title of "A Plea for Cold Climates in the Treatment of Consumption," Dr. Talbot Jones, of Minnesota, published in the September number of this journal a carefully prepared article on the climatic treatment of pulmonary phthisis. The writer has evidently studied the subject in all its details, is thoroughly conversant with its literature, and presents his conclusions with a degree of candor and fearlessness too rarely met with in publications of that character. He throws aside the long cherished doctrine that phthisis is a disease of cold climates, and demonstrates, on the contrary, by means of well-chosen citations, that the disease in question prevails extensively in the tropics, and that it decreases in frequency as we approach the poles. He furthermore boldly asserts that equability of temperature is by no means essential in the treatment of consumption, and that the best results are frequently obtained in cold, dry climates, where the daily range of temperature is necessarily very great, the difference between the temperature of day and night being always greatest when the air is most dry, as, for instance, in the desert of Sahara, where a degree of heat approaching that of a summer's day is not unfrequently followed by a night of intense cold. Hence, too, the extreme variability of the Colorado climate, with its average diurnal range of 28°. With the spirit of an inveterate iconoclast, he demolishes the new-fashioned idea that diminished barometric pressure is the most important element in the climato-therapy of pulmonary consumption, and that this agent, far from being universally beneficial, is, in some instances, decidedly injurious. His assertion that a too high degree of altitude is liable to induce hæmorrhage is admitted even by the warmest supporters of that seductive theory. The good results attained at mountain sanitaria he justly attributes to the greater purity of the air, a fact the correctness of which has been practically demonstrated by the careful researches of Küchenmeister, himself an advocate of elevated mountain sanitaria. After careful comparison of the vital statistics of the kingdom of Saxony, he discovered that in that country the immunity from consumption was due not to altitude, but to other causes; that consumption was found to prevail in the elevated regions of the Erz and Bresengeberge, while many places in the valleys enjoyed more or less immunity; that immunity, where it did exist, was due to the open-air occupations of the inhabitants; that, when agriculture and stock-raising were abandoned for factory work and mining, the disease prevailed just as extensively in the mountains as in the valleys. I quote from Schreiber's lecture, "Meteorology in the Service of Medicine," which I translated a couple of years ago for the "Louisville Medical Journal."

Dryness of the air Dr. Jones justly regards as a factor of paramount importance in the climatic treatment of consumption, and experience shows pretty conclusively that the best results are obtained in those climates possessing the smallest percentage of moisture, be it in Colorado or in Minnesota, at San Antonio or at Aiken. Having established the fact that the best climate for consumption is one that is dry and bracing, with a moderate amount of elevation, the author claims that these essential features are obtained to a great degree in the climate of Minnesota. These views are in such perfect accord with those entertained by modern medical climatologists that praise or blame would be alike superfluous, and my only object in recapitulating them is to do away with the impression conveyed in Dr. Jones's paper that all the climates of the South are mild and relaxing, and to show that at least one resort in that section has a winter climate possessing in a high degree those very attributes which he justly considers so essential in the treatment of consumption. The winter health-resorts of the South are distributed over a tract of country embraced between the 28° and 36° of north latitude, and, were a line to be stretched from Asheville, N. C., the most northern, to Tampa, Fla., the most southern of them, it would cover nearly five hundred miles. A moment's reflection will show that this immense territory must necessarily comprise an infinite variety of climates. Some of them, like Asheville and Aiken, are tonic and bracing, while others farther south are mild and sedative. Of the former class, Aiken, S. C., may be considered the type. The mean winter (November, December, and January) temperature of that place is 48·59° F., which is certainly low enough to admit of its being classed as tonic and bracing, and thus fulfills the first of Dr. Jones's conditions. Having an altitude of 585 feet, and being the highest point in that portion of South Carolina, secure for it the requisite amount of purity in its atmosphere. As regards dryness both of soil and air, Aiken is surpassed by no station east of the Rocky Mountains. A series of observations carefully conducted for the U. S. Signal Service, and extending over several years, give 59 per cent. as the annual average of relative humidity at Aiken, while that of St. Paul is 68 per cent., a difference of 9 per cent. in favor of the former place. In comparing the relative humidity of the two stations during the months of November and December, 1877, and January, 1878, we find a still greater difference, the percentage at Aiken being only 58 per cent. against 77·7 per cent. at St. Paul. Judging, then, by Dr. Jones's own standard of what should constitute a good climate for consumptives, few physicians would hesitate in their choice between the moderately bracing winter of Aiken, with its greater dryness, and the piercing cold of Minnesota, where for weeks the mean temperature is sometimes 2·2° below zero, with a range of from 33° below to 23° above.* It is true that the January of the year I cite was an unusually cold one, but what has occurred once may take place again. Cold acting as a tonic is undoubtedly a valuable factor in the climatic treatment of phthisis, but here as elsewhere we may rush into extremes. Iceland enjoys a far greater immunity from consumption than Minnesota, but it is questionable whether any one would care to select Akreyri as a sanitarium for pulmonary invalids.

It is an undeniable fact that many consumptives have regained their health in Minnesota, and that there are many cases in which that climate—with all its severity—is indicated. The climatic treatment of consumption, to be at all successful, must be conducted on scientific principles, remembering always that we have to do with a very complex affair, a sort of prescription composed of many ingredients, necessitating a careful study of the indications in each individual case. Without pretending to speak from personal experience, I should say that the cases that are likely to do well in very cold climates are those in which there is little or no emaciation, in which the red elements of the blood are still abundant; cases, in short, in which, owing to the slight inroads made by the disease, the patient still possesses the power of resisting extreme cold. Such cases will improve in Minnesota, but they constitute the class which always admits of the most favorable prognosis, and, if they get well there, it is fair to conclude that the result would be equally good in other bracing climates. My own experience at Aiken, where during the last ten years I have observed numbers of such cases, demonstrates the truth of this assertion. But, granting that these cases do even better in Minnesota, there still remains another, and by far larger, class of patients, for whom, owing to anæmia, to great susceptibility of the mucous membrane to the action of low temperature, and to other reasons, that climate is too severe, but to whom the South still holds out the chances of a cure, or, if that be impossible, affords them at all events a degree of comfort and relief unattainable in the bleak climates of the North. To endure a winter like that of Minnesota requires a degree of physical strength not commonly met with among consumptives. An intelligent gentleman of Philadelphia, who had visited Minnesota on account of an infiltration of the left lung, and who subsequently recovered at Aiken, informed me that one of the chief objections to a winter residence there was that the extreme cold necessitated such heavy wraps that an invalid was so weighed down with clothing as to interfere with his locomotion, and was thus to a great extent deprived of the out-door life so essential to his well-being. Another advantage possessed by the southern resorts over those of the North is that the apartments in the former section are heated with open fire-places, which, by drawing off the foul air, secure to the invalid a pure, fresh atmosphere unobtainable in a stove- or furnace-heated house, even when the heating apparatus is constructed according to the newest and most improved pattern. Dr. Jones is mistaken when he speaks of Charleston as a sanitarium of no mean reputation for consumption. Not only is that disease not unfrequent there, but it would be difficult to find in that city any conscientious physician who would advise consumptives to be sent there, or who, when they do come, would sanction their remaining. The climate there, notwithstanding its proximity, is the reverse of that of Aiken, being moist, mild, and relaxing in its character. My object in the preparation of this paper is, not to induce physicians to send their cases to Aiken, but to advise them to utilize our various resorts with the same degree of discrimination that they would exercise in prescribing any other potent therapeutic agent.

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* "Annual Report of the Chief Signal Officer, for 1875," p. 242.

Although not in accord with Dr. Jones in his estimate of southern climates, I can not refrain from expressing my high appreciation of his most excellent essay. His remark that no American invalid need leave his country in search of health is one that our physicians should always bear in mind. Our country is vast, and its climates are varied, and there is no resort abroad which has not its parallel at home. They are, however, to most of our physicians hidden treasures, and it behooves those of us who have made climatology a special study, not to laud our favorite resorts as universal panaceas for every ill that flesh is heir to, but to publish to our professional brethren a correct account of their climatic peculiarities, together with a candid statement of those diseases in which experience has shown them to be useful. It is out of monographs such as these that some one will one day construct a systematic work on American climatology.*

ON THE PATH OF THE INHIBITORY AND SENSORY FIBERS IN THE MEDULLA OBLONGATA.

By ISAAC OTT, A. M., M. D.,
LATE LECTURER ON EXPERIMENTAL PHYSIOLOGY, UNIVERSITY OF PENNSYLVANIA.

The path of fibers after they leave the cord and enter the medulla oblongata has been mainly worked out by anatomical researches. The motor fibers have their paths somewhat defined, while the others pursue a course in great part unknown. Schiff † found when he hemisected the medulla oblongata that sensibility in the trunk and limbs was not lost on either side, while the head on the side of section, as well as the parts behind the section on that side, was hyperæsthetic. He arrived at the conclusion, in regard to the path of the sensory fibers, that they were in the posterior or anterior half, or, what is most probable, that both halves of the medulla oblongata conveyed sensations upward by means of their gray substance. Brown-Séquard states that the restiform columns are not the conductors of sensibility. Longet thinks that the posterior part of the medulla conducts sensory impressions.

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* Dr. Jones himself, while deprecating the sending of pulmonary invalids South, says: "If physicians are determined to send their patients to a warm, instead of a cold, bracing, invigorating climate, it seems to me they should by all means select a site with considerable elevation above the sea, and where the atmosphere is dry. Such a place, for example, as Aiken, S. C., which has an elevation of 556 feet above the sea, and the climate of which is dry—differing in this respect from the climate of Florida." It will be seen, however, that he makes the mistake of classing Aiken among the warm climates of the South.

† "Lehrbuch der Physiologie des Menschen," Lahr, 1859.

Method: Cats were selected, bound down, and chloroformed, when tracheotomy was performed; then the head was strongly flexed on the body, and the tissues over the posterior occipito-atloid ligament divided longitudinally, and held apart by weighted hooks. The posterior occipito-atloid membrane was carefully cleared of all tissues, and then divided. Artificial respiration was now instituted, and the different parts of the medulla divided by a Cooper bistoury. The bleeding was checked by absorbent cotton. After the operation, the presence or absence of the rhythm of the sphincter ani was noted.

Inhibitory Fibers.—The inhibition exerted by the optic thalami upon the ano-spinal center is bilateral, because both optic thalami must be divided before the rhythm of the sphincter takes place. The fibers of inhibition run in the lateral columns. In conjunction with Dr. R. M. Smith, I have shown that these fibers decussate about the nib of the calamus, and run down the internal half of the middle third of the lateral columns. When I mention the intermediate columns of the oblong medulla, I mean what are usually termed the lateral columns. When I divided the posterior pyramids and the restiform bodies, no rhythm appeared. But when this section included the posterior pyramids, restiform bodies, and the intermediate columns, then a rhythm was noted to take place. When I divided the gray matter transversely, no rhythm occurred. When part of the anterior pyramids were divided and the remainder crushed, a faint rhythm was also noted. The decussation of the inhibitory fibers proves that they do so in the anterior pyramids, for the lateral columns of the spinal cord in part cross over in the anterior pyramids. But my experiments prove that before you reach the anterior pyramids, in making a transverse section of the intermediate columns, a rhythm takes place. Now, as the fibers of the intermediate columns do not decussate, it must be inferred that some inhibitory fibers pass down the intermediate columns without decussating. The bilateral system of inhibitory fibers, then, arises in the optic thalami, passes down through the crura cerebri, pons Varolii, and anterior pyramids, and into the opposite lateral columns of the spinal cord through the internal half of the middle third of these columns, while others, instead of decussating, pass through the intermediate columns, and directly into the lateral columns of the same side. This system of fibers has been wholly demonstrated by experimental methods, and not by anatomical researches.

Sensory Fibers.—Method: The same animals were used, and the same methods. The pupil was exposed by slitting up the external commissure and separating the lids by means of weighted hooks. To irritate the skin I employed a Du Bois inductorium and needle-electrodes, which were placed on the posterior extremities. In order that the method may be more clear, I will state that Schiff* discovered that, if we irritate or pinch the skin in *some* carnivora, the pupil dilates. This dilatation does not take place if the cervical sympathetic is cut, or if the cerebrum is removed. Section of the cord at the medulla also abolishes it. In the spinal cord I have shown that the fibers calling out the pupil-dilatation run in the lateral columns, and not in the gray matter as held by Schiff. Now, if I make sections of the medulla oblongata, I can prove by this method that sensory fibers run in certain parts of it, and, as the pupil dilates in a reflex manner, that efferent fibers also run in the same parts.

The absence of the dilatation would prove one of two things, either that no sensory fibers existed, or, if they did, that the efferent were divided. When the posterior pyramids and restiform bodies are divided transversely, and the skin of the posterior extremities is irritated, the pupil dilates. If the gray matter is divided in a transverse manner, then dilatation also ensues upon irritation of the posterior extremities. If everything is divided except the posterior pyramid, restiform body, and a small posterior portion of the intermediate column is left, then upon irritation a dilatation ensues. If the posterior pyramids and restiform bodies are divided, and the anterior pyramids partly divided and partly crushed, then, upon irritation of the posterior extremities, a dilatation of the pupil ensues. These facts demonstrate that sensory fibers were in the intermediate columns, and, as efferent fibers are necessary to cause the pupil to dilate, that they also run in the intermediate columns. The pupil test is exceedingly sensitive, and is but little interfered with by the shock of the sections. The conclusion necessarily follows that sensory and efferent fibers run in the intermediate columns of the medulla oblongata. The fibers of respiration also run in the same columns, for this act ceased only after division of the intermediate columns.

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* "La Pupille considérée comme Esthésiomètre," Paris, 1875.

REMARKS ON ANTISEPTIC DRESSINGS.

By ROBERT F. WEIR, M. D.,
SURGEON TO THE NEW YORK AND ROOSEVELT HOSPITALS.

In the "American Journal of the Medical Sciences" for April, 1879, I called attention to the advantages of carbolized jute over Lister's carbolized gauze, not only in accommodating itself to the inequalities of surface in certain parts of the body, as for instance the groin and the region of the breast and axilla, but also in being cheaper and more readily manufactured. In the latter respect particularly I again beg leave not only once more to commend the prepared jute,* but also to testify to the excellent gauze that can now be made offhand by means of a formula that has recently been made known to us by the German surgeon, Von Bruns. This is made by immersing gauze (cheese cloth), or coarse muslin, or even mosquito-netting in a mixture consisting of 400 grammes of powdered resin, 2 litres of alcohol, 100 grammes of carbolic acid, and 80 grammes of castor-oil. The resin is dissolved by heat in the alcohol, and the other ingredients are then added. The gauze thus prepared is even softer than when made after the formula of Lister, which, it is well known, can be obtained only with difficulty by the practitioner far from a large city.

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* Made after the formula of Münnich, by taking for each pound of jute 50 grammes of carbolic acid, 200 gr. of resin, 250 gr. of glycerine, and 550 gr. of alcohol. After immersing the jute in this mixture, prepared by first melting the resin in the alcohol by warmth and then adding the acid and glycerine, it is dried and can be immediately used. Or it can be made by the cheaper method resorted to in the New York and Roosevelt Hospitals, consisting of the replacement of the alcohol by benzine, in the proportions of 10 per cent. of carbolic acid, 40 per cent. of resin, 10 per cent. of paraffin, and enough benzine to moisten a pound of jute.

The gauze of Von Bruns differs, it will be noticed, from Lister's in the substitution of castor-oil for paraffin. Instead of letting the gauze completely dry by the evaporation of the alcohol, it can, if it is not immediately required, be wrapped while yet wet in rubber cloth, and put away in a tight box for future use. This careful preservation of all carbolized materials is imperative; for, while it is true that the resin contained in these various mixtures permits the evolvement of carbolic acid to take place slowly, yet experience has shown that, even when such precautionary measures as enveloping the prepared dressings with rubber cloth or with oiled silk "protective" have been resorted to, deterioration of the impregnated material will surely take place. In the article referred to, I quoted Münnich as stating that, after eighteen months' preservation, Lister's carbolized gauze was found on testing to have retained as much as 3·8 per cent. of carbolic acid, and that carbolized jute showed after six months a loss of but 3 per cent. of acid. These facts led me to say that "such data rendered it justifiable to preserve a stock of antiseptic material on hand, provided it be kept strongly compressed if jute, and tightly folded if gauze, and in both cases that it be wrapped in oiled silk or rubber cloth and stored in a box in a cool place." Lately I have had reason to modify this statement, from having been induced to submit the various preparations of carbolized jute and gauze to a quantitative analysis to determine the strength of acid retained in them at varying times from the date of their manufacture. The results have differed considerably from those of Münnich, while the method of testing has been mainly the same resorted to by him.

For instance, seven samples yielded the following percentages of carbolic acid when analyzed:

1. Carbolized jute, made at the New York Hospital July

12, 1879, and carefully kept wrapped up in rubber cloth and secured in a box, gave, when tested November 19, 1879, 1·46 per cent. carbolic acid.

2. Carbolized jute, made November 9, 1879, after Münnich's formula, and freely exposed for three days, when tested November 19th, gave 2·95 per cent. carbolic acid.

3. Carbolized gauze, made at the Roosevelt Hospital August 27, 1879, after Lister's formula, and kept in a box wrapped up in rubber cloth, gave, when tested November 19th, 1·44 per cent. carbolic acid.

4. Carbolized gauze, made at the New York Hospital September 23, 1879, after Lister's formula and similarly preserved, gave, when tested November 19, 1879, 1·57 per cent. carbolic acid.

The percentage given by Münnich of the full strength of Lister's gauze is 5 per cent. In order to have a satisfactory comparison established between the carbolized gauze and carbolized jute, three specimens of prepared jute, manufactured October 20, October 31, and November 13, 1879, were analyzed, and gave respectively a percentage 5·80, 4·56, and 5·56 of acid.

These figures explained clearly some disappointments that had recently occurred, wherein, in the treatment of certain injuries and wounds, old jute had been employed, and, in searching for a reason for this, this investigation was resorted to. Reasoning somewhat from the fact that a 1 to 40 or 2·50 per cent. solution is the weakest used in a wound, I should be disposed, though accurate data on the point are yet wanting, not to place in contact with such a wound a dressing of any less strength, and hence have directed that any carbolized jute or gauze below this standard should be recarbolized before being used. The sum of these remarks hence is, 1. That new carbolized material can be easily made by any practitioner, instead of such a one being dependent, as heretofore, upon a manufacturer in some large city; and 2. That it should be made in comparatively small quantities, not kept on hand too long, and should be preserved in a box in a cool place, tightly rolled up in rubber cloth, oiled silk, or "protective."

THREE CASES OF ABDOMINAL DISEASE OF UNUSUAL DIFFICULTY OF DIAGNOSIS; AUTOPSIES.

By A. A. SMITH, M. D.,

LECTURER ON THERAPEUTICS AND MATERIA MEDICA, AND ON CLINICAL MEDICINE, IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE, NEW YORK.

Case I.—*Gall-stone ulcerating through from Cystic Duct into Duodenum; Enormous Distention of Bladder; Bronchocele.*—Mr. C., aged sixty-four, by occupation a safe and lock manufacturer, has been a patient of Dr. Barker's the past twenty years. During the past four years I have frequently seen him professionally, usually with attacks of disturbance of digestion, from which he had suffered for years. These attacks were characterized by nausea and vomiting, severe gastric pain and headache, and obstinate constipation. There was never any jaundice. He was apt to commit errors in diet. I also saw him with severe lumbago twice, and twice he had hæmoptysis. The blood lost was very light in color and frothy. As a careful examination failed to reveal any cause in the lungs for the bleeding, we were forced to conclude that it came from the trachea, and the cause of it was pressure from a bronchocele which was very large and had existed many years. When the hæmoptysis occurred, there was a decided increase in the size of the bronchocele, and it was at such times painful. Another fact which pointed to the vicinity of the bronchocele as the origin of the blood was the marked diminution in the size of the tumor after the second hæmorrhage. This bronchocele was at times very painful, and at such times it would increase in size and become very hard.

Early in July, 1878, I saw Mr. C. in one of his attacks of indigestion, unusually severe and prolonged. He had been out of the city for two days, and while away had eaten some clams, which seemed to be the immediate exciting cause. He partially recovered from this attack. One week later, a still more severe attack coming on in my absence from the city, a neighboring physician was called in, and after a few visits pronounced the case one of cancer of the stomach. The diagnosis was based on the facts that there had been a loss of about fifteen pounds in weight in three weeks, great pain in the epigastric region, the cachectic look, and the vomiting of enormous quantities of dark coffee-ground-looking material, which was very offensive. He had never vomited this material during my attendance. There was no tumor discovered, and, although there was no jaundice, yet there was tenderness over the region of the liver. Certainly there were some grounds for thinking there was cancer.

Dr. Barker, on his return from Europe in September, saw him, and was uncertain as to diagnosis for a few days, and in that few days the patient began to improve, and soon was able to get out and attend to business part of the day. The physician who had been called in still remained in attendance, and held to his diagnosis of cancer.

In October, at the urgent solicitation of some friends, he was induced to go to Saratoga, to consult a quack, who promised to cure him of cancer by means of herbs and electricity. He had gone on losing flesh and strength. He was unable to take more than very small quantities of food at a time, and that always gave him distress, and frequently produced the vomiting of the dark-colored material. Such was his condition of mind when he went to Saratoga, that he was easily made to believe in anything which held out a hope of cure. The electricity was applied violently twice daily, and herb-teas were given in large quantities—from two to three quarts a day. These teas were probably diuretic, for in a few days, after passing enormous quantities of urine, there was suddenly a diminution in the quantity, and a swelling made its appearance in the hypogastric region. This swelling the profound physician pronounced to be the cancer, which had left the stomach and intestines, and was making its way out of the body through the bladder and urethral canal. Mr. C.'s son, a very intelligent young man, now succeeded in inducing his father to leave, and they came to New York by way of Albany and the boat. On his arrival, November 6th, Dr. Barker saw him, and immediately pronounced the hypogastric swelling to be due to retention of urine, and drew off three pints, but stopped at that quantity, desiring not to completely empty the bladder at one time. In the evening I saw him, and drew off four pints more. During the first forty-eight hours after his return from Saratoga *fifteen* quarts of urine were drawn, incredible as the quantity may seem. The family measured it accurately, and there are no fewer than five witnesses to the fact of the quantity. When Dr. Barker stated, at a meeting of the Medical and Surgical Society, that the quantity drawn off was eight quarts, there was a murmur of surprise and doubt; yet the story of the quantity was only half told. The patient looked on the first day as large as a woman six months advanced in pregnancy.

His condition improved for ten days after this. On November 16th he again began the vomiting of the dark-colored material. The pain in the stomach had continued more or less all the time, but increased when the vomiting came on again. There was no albuminuria at any time. On November 23d, again becoming discouraged, he was induced to consult a homœopath. The individual whom he consulted told him he had cancer of the stomach (having been told that that diagnosis had been made), but, said he, suiting the action to the words, "I snap my fingers at cancer, and will cure you." Two weeks were quite enough of that kind of treatment. One more effort before he returned to his former physician. He was induced to consult a manipulator—a strong, masculine female. This woman pretended to see through his abdominal walls into his abdominal cavity, and to tell all about it, and that, too, without removing his clothing. She manipulated him three times, and succeeded in bruising him pretty thoroughly.

December 23d.—We were sent for again, and attended him until his death, which occurred January 4, 1879. He was unable, the last two weeks of his life, to retain any food except kumyss, and died of exhaustion. It was always necessary to draw the urine after his return from Saratoga.

Autopsy.—I made the autopsy, assisted by Dr. W. H. Welch. The gall-bladder had become adherent to the duodenum, and the two viscera communicated by means of an opening three quarters of an inch in diameter. The gall-bladder was contracted around a number of gall-stones, one of which seemed nearly to occlude the cystic duct. The pressure ot a large gall-stone, which remained in the opening between the gall-bladder and the duodenum, diminished the size of the pyloric orifice to such an extent that the little finger could be passed with difficulty. There was no cancer in the stomach or intestines.

The bronchocele was removed, and half of it consisted of a jelly-looking mass. In the other half there were three cysts, into which blood had apparently escaped at some time.

The other viscera were examined, but no special points of interest were found. The bladder showed no special evidence of the great distention which it had undergone.

The points of interest seem to be as follows:

1. A gall-stone ulcerating through the cystic duct into the duodenum, and one almost occluding the duct, yet no jaundice at any time. Murchison has shown that, so long as the gall-stone does not pass beyond the cystic duct, there is no jaundice, and jaundice does not occur until the gall-stone passes on into the common duct. It is interesting to note that fistulæ may be established between the cystic duct and the duodenum by ulceration, and that gall-stones much larger than could possibly pass through the common duct may be passed through these fistulæ. Murchison has collected the histories of quite a number of such cases—twenty-eight in all. Frerichs also refers to this fact. There were never any gall-stones passed by the patient, so far as known, and none were found in the intestines at the autopsy.

2. There were many of the symptomatic evidences of cancer of the stomach, but none of the physical signs of it.

3. The capacity of the bladder. I used great care in getting at the quantity, desiring to be accurate, and knowing that the quantity was enormous. Murchison ("Diseases of the Liver") reports a case in which the distended bladder reached far above the umbilicus, and the quantity drawn off at one time was four hundred and eighty ounces, equal to *fifteen* quarts. It was drawn off by tapping with a trocar, having been mistaken for ascites. The trocar was introduced midway between the umbilicus and the sternum. At the meeting of the Medical and Surgical Society referred to, Dr. Barker asked several gentlemen the extent to which the bladder might be

distended without rupture, and the greatest capacity named was six quarts.

Case II. *Thrombosis of Portal and Splenic Veins; Rapid Filling of the Peritoneal Cavity; General Peritonitis.*—Lieut.-Gen. T., while in Washington the latter part of February, 1879, as he was about to leave the house where he was staying to go to a dinner party, was suddenly attacked with hæmatemesis, vomiting, it was said, more than a quart of dark blood. In two weeks from this time he recovered his strength sufficiently to leave Washington and come on to New York. Previous to the attack of hæmatemesis, he represented himself, and evidently believed himself, to be in good health, but his friends had for some months observed appearances of bad health. On his arrival in New York he consulted Prof. Austin Flint, who found the spleen greatly enlarged and tender on pressure, and some fluid in the peritoneal cavity. The liver seemed of normal size. His appetite was good, and he complained of nothing except shortness of breath and difficulty in going up stairs. The abdomen rapidly enlarged and became painful, and his general condition became worse.

March 23d, Dr. Barker was associated with Dr. Flint in the case. The patient's appetite now began to fail, and he suffered so much distress from distention of the abdomen that it became necessary to relieve him by tapping. I did the tapping, and drew off nine quarts of fluid. For the first time, it was now possible to make a thorough examination of his abdomen. No tumor of the stomach could be found. The liver seemed normal as to size, and his habits of life and symptomatic history seemed incompatible with the theory of cirrhosis of the liver, while the enlarged spleen and the hæmatemesis were believed to be due to some obstruction to the portal circulation.

For three days after the tapping he was greatly relieved of both the pain and dyspnœa, rising about ten o'clock and sitting up until evening. He took about two quarts of milk a day with great relish, but very little food besides.

On April 8th he began to complain of great pain in the abdomen, nausea, weakness, and disgust at the sight of food. The next day he vomited about a quart of fluid, which was chiefly blood, having the appearance of black vomit. He also had several discharges from the bowels of the same character. He became unconscious April 11th, and died in the night.

Autopsy, April 12th, made by Dr. W. H. Welch, twelve hours after death: *Exterior.*—Emaciated. Old brownish cicatrix over crest of left tibia, said to be due to a wound received in the Mexican war.

Heart.—Dimensions of heart walls and cavities normal. Recent fibrinous vegetation, of the size of a pea, on auricular surface of mitral valve; also, several smaller fibrinous deposits on the same surface.

Lungs.—Old pleuritic adhesions on both sides, hypostatic congestion, and œdema.

Spleen.—Much enlarged, about ten inches long and six broad; consistence firm; capsule much thickened in spots. The organ contains several hæmorrhagic infarctions, three of large size, one being four inches in diameter. The large ones are of dark-red color; some of the smaller ones are partially decolorized. Grayish-red ante-mortem thrombi can be detected in the branches of the splenic vein leading to the infarctions.

Kidneys.—Surface coarsely lobulated; presents several cicatrix-like depressions; cortical substance thin; capsule non-adherent.

Liver.—There are two cicatricial depressions on the upper surface of right lobe. The remaining surface is somewhat granular, but the cut surface shows no signs of cirrhosis or other change.

Peritoneal Cavity.—Contains several quarts of yellowish fluid holding in suspension flocculi of fibrine. There are present recent fibrinous deposits over visceral and parietal peritonæum, evidencing acute general peritonitis.

Splenic and Portal Veins.—On the inner surface of the splenic vein, and also to a less degree in the portal vein, there are several rough calcareous plates and spines projecting into the lumen of the vessel. Firmly attached to these calcific spots, and extending throughout the splenic vein and into the substance of the spleen, and through the portal vein as far as its primary divisions in the liver, is a grayish-red thrombus, which at the bifurcation of the portal vein appears to completely occlude the lumen of the vessel. The thrombus is moderately adherent to the vessel wall, but is not organized.

Stomach.—Contains black coagulated blood.

REMARKS.—It would seem impossible, as the autopsy showed, to have been more definite in the diagnosis than to say there was some obstruction to the portal circulation, and yet I know of nothing that could obstruct the portal circulation and produce ascites so rapidly the first time as it was produced in this case, except thrombosis. The peritoneal cavity seemed to fill with fluid in ten days. We see cases of cirrhosis of the liver sometimes in which there is as rapid filling of the cavity as this after the patient has been tapped.

Had malarial poisoning, from which the General had suffered in 1864, in Louisiana, while serving in the Confederate army, anything to do with the causes of his death? There might have been at that time a portal phlebitis, which left a thickening of the coats of the vessel.

CASE III. *Gouty Anœmia; Three Attacks of Circumscribed Peritonitis.*—Mr. M., aged 56, a banker, unmarried, was always a free liver, and enjoyed good health, with the exception of occasional attacks of gout, which readily yielded to remedies.

In January, 1878, he had a slight attack of gout. He had noticed that for about three months previous to this attack he had not had his usual appetite; that his strength was failing; that he had had occasional attacks of diarrhœa with some pains in the abdomen; that slight exertion made him short of breath, and made his heart palpitate; and that he was growing very pale. He soon got over his attack of gout, but his strength did not return, and he was obliged to take anodynes to make him sleep. His complexion became more pale and waxen in appearance. The urine contained no albumen and no casts. From forty to forty-eight ounces were passed in twenty-four hours, with a specific gravity of 1·006. He drank a good deal of Vichy water, which might have accounted for the quantity passed and the low specific gravity, though there was a suspicion of a gouty kidney. He re mained in quite a feeble condition, with occasional attacks of diarrhœa until summer. In July he went to Saratoga, and seemed to improve, although the paleness of countenance and dyspnœa on exertion remained. There was no pulmonary or cardiac disease. In September, soon after Dr. Barker's return from Europe, Mr. M. had an attack characterized by severe lancinating pain in the right iliac fossa, accompanied with diarrhœa and with vomiting of a brownish-colored fluid. The temperature was 100° F., pulse 120. This attack lasted in its severity for twenty-four hours, and then gradually passed off under appropriate treatment. Dr. Flint saw him in consultation. The opinion then was that it was an attack of circumscribed peritonitis. After this attack he began to improve, became stronger, his appetite was better, he slept better, and was in better spirits. He continued to improve until, in November, he had a second attack of the severe pain in the right side, similar to the first. He recovered so rapidly from this attack, and improved so much, that Dr. Barker suggested the name pseudo-peritonitis. His improvement was so great after this second attack that he looked forward soon to going down to business.

January 13th, at 5 A. M., in Dr. Barker's absence from the city, I was called to see him (I had seen him frequently during the year). I found him lying on the back, with knees bent, legs drawn up, countenance anxious, vomiting a greenish-looking material, and complaining of most intense pain in the right iliac fossa. There was considerable tympanitic distention of the whole abdomen. Temperature, 99·5° F.; pulse, 120. I suspected that there had been perforation of the intestine. He seemed almost in collapse, and greeted me as I came into the room with "Doctor, this is the last of me." I gave him twenty minims of sol. morph. sulph. (Magendie), and applied hot fomentations. I kept him steadily under the influence of anodynes all day. Dr. Barker returned in the evening about ten and saw him, as did also Dr. Flint. His pulse at this time was 130, and his temperature 99·5° F. We all thought he would recover from this attack as he had done from the others. Two hours and a half afterward, he exclaimed, "Oh, the pain," and died in a few minutes.

Autopsy.—On opening the abdominal cavity on the right side, quite low down in the pelvis, and over a surface about four inches square, there was evidence of a recent peritonitis, also strong adhesions binding the intestines together very firmly at that point, showing a former peritonitis. There was no perforation, nor were there ulcerations in the intestines. There was a small quantity of opaque fluid in the peritoneal cavity. The kidneys showed no degenerative changes. Spleen normal. Liver slightly enlarged. Lungs and heart normal.

TWO CASES OF PUDENDAL HÆMATOCELE WITHOUT INTERRUPTION OF EXISTING PREGNANCY; TREATMENT BY INCISION.

By EDWARD L. PARTRIDGE, M. D.,
PHYSICIAN TO THE OUT-PATIENT DEPARTMENT OF THE NEW YORK HOSPITAL.

Case I.—Mrs. D., twenty-six years of age, gave the following history when first seen, in 1876. She had had two living children and two miscarriages, the latter taking place between the former. Her second living child was born in March, 1875, and weaned in May, 1876. She was not "unwell" during lactation. In April, 1876 (the time from which she dates this pregnancy), she began to have nausea and other symptoms of pregnancy. On June 18th, there was a discharge of blood from the vagina, and again from July 21st to the 23d. On August 5th, she had a flow of blood, attended with pain, was seen by me, and what appeared to be a threatened abortion was averted by the use of morphine. Quickening took place about August 20th.

On September 1st, the patient fell so as to strike the right side of the vulva on the sharp back of a wooden chair, and immediately a tumor of blood appeared, as large as a medium-sized orange. There was very great pain, and the patient slept very little the following night. On the day following, an incision was made, and two large clots were turned out. Hæmorrhage took place, which was readily checked by pressure. The subsequent dressing was a carbolic-acid solution. Four weeks later the wound was completely cicatrized. During all this time there was no attempt on the part of the uterus to throw off its contents.

November 12th, after a night of perfect rest, the patient arose, and immediately discharged a clot of blood. Uterine contractions at once commenced and continued, and, after a natural labor, the child was born at eight o'clock in the evening. The placenta and membranes appeared normal, the the former being of good size. The child was resuscitated with difficulty, and lived forty hours. Its appearance indicated a fœtal age of about seven and a half months.

Case II.—Mrs. G., twenty-one years of age, while attempting to hang a looking-glass, fell astride of it, and, in ten minutes, a pudendal hæmatocele was present on the right side, as large as an average-sized fœtal head. On seeing the patient a few hours later, I learned that she was then in her third pregnancy, and was advanced a little beyond the end of the eighth month. She was suffering great pain, for which an anodyne lotion was ordered, with one grain of opium to be taken internally every two hours until relief was obtained.

On the following day, June 14, 1877, the tumor was not reduced in size, was exquisitely painful and tender, and of a deep purple color. An incision, an inch and a half long, was made on the inner side of the labium minus, and eight ounces of partially coagulated blood removed. There was a decided tendency to hæmorrhage, which was controlled by a tampon of dry lint. During the next six days the entire contused lining of the cavity sloughed, and another opening, as large as a cent, resulted from this process, at about the middle of the labium majus of that side. The offensive odor from the discharge of bloody pus and shreds of devitalized tissue could be corrected, in part only, by the use of carbolic acid. During this time the patient was quite comfortable while in bed, but could neither sit nor stand with comfort. After the sixth day from the time of the incision (June 20th) the wound closed rapidly, the granulations being healthy, and the discharge inoffensive and moderate in quantity. On June 23d, ten days after the accident, she was walking about, out-of-doors. There was at no time any constitutional disturbance, nor were there any premonitions of labor.

On June 30th she was confined, at full term, after a natural labor. The child was large and vigorous. At this time the cavity of the hæmatocele was about three quarters closed. Convalescence was normal.

On July 9th, local examination showed a granulating surface of small size.

When we compare the views of the past with those of to-day, upon the subject of traumatism in its relation to the pregnant state, we discover the greatest possible disparity of opinion. When, too, we read the somewhat fragmentary literature of this subject, and occasionally meet with isolated records of illustrative cases, we can not but feel that the limit of our attainable knowledge in this direction is very far from being reached. Ovariotomy has been repeatedly performed during the pregnant state without in any way interfering with the natural progress of gestation. The uterus has been tapped, and liquor amnii withdrawn, and uterine polypi have been removed without interrupting pregnancy. A great number of capital and minor operations have been successfully performed without harm to existing gestation. On the other hand, we not infrequently see the most trivial events productive of abortion.

The first case narrated illustrates the fact that, during a single pregnancy, two occasions were reached when the tendency to premature expulsion of the ovum was very great, without the existence of any decided exciting cause; while, in this same history, we find that we have severe and protracted irritation to the parturient tract without any tendency to abortion. In the second we have a much greater and longer continued irritation of the genital organs without interference with gestation.

One other point in connection with the histories related has reference to the treatment of pudendal hæmatocele. Subcutaneous extravasations of blood should certainly, as a rule, remain undisturbed by the knife. Absorption usually takes place. It seems to me, however, that if the amount of effused blood is large, and its location is such that by its presence it interferes with the ordinary duties of the individual, there can no harm come from evacuation of the tumor. In pudendal hæmatocele, owing to the number and size of the venous plexuses, and to the looseness of the adjacent cellular tissue of the region, the amount of blood effused is usually large; and if the case is left to nature, and absorption takes place, the patient necessarily suffers pain and much inconvenience for many days. The pain arising from stretching of the parts is considerable, she is compelled to maintain the recumbent posture to obtain partial relief, and this, continued for many days, resolves itself into an illness which taxes her patience and general health. If nature fails to effect absorption (and we may have to wait some little time to know this), there must come suppuration and putrefaction of the extravasation, depending not only upon the amount of effused blood, but very much upon the grade of contusion that the tissues have suffered. These events are attended by increasing pain and decided constitutional symptoms. The extravasation of blood must now be converted into an abscess, and this process is not usually a rapid one. The result is almost always favorable, but the formation of the abscess and the gradual thinning of the skin may occupy several weeks. I have, in four cases of pudendal hæmatocele, freely evacuated the tumor, in from twenty-four to forty-eight hours after the accident, with the most satisfactory results; and in all cases of this accident occurring during pregnancy—and in all severe cases at other times—it would be the treatment which I should follow. The best time for the incision, which should be a free one, is on the day, or day but one, following the injury. This delay will obviate much loss of blood. The cavity which contains the coagulated blood should not be forcibly cleaned at once, but, after pretty complete removal of the clots with the finger, should be solidly packed with dry lint without any styptic. A partial tamponning of the vagina will remove all danger of hæmorrhage. Twenty-four hours later no bleeding need be feared, and the subsequent treatment required is simply cleanliness, with the use of antiseptic solutions.

This treatment enables the patient, within three or four days, to move comfortably in bed, and within a week she can move about upon her feet with very slight inconvenience or pain, although some time may elapse before the wound will be completely healed.

Finally, I can not perceive that any special danger from septic absorption need be apprehended, if ordinary care is taken of the patient. If a pudendal hæmatocele occurs during pregnancy, it would appear still more important to pursue this treatment—in order to avoid premature uterine action—because pain is promptly relieved, and reflex irritation is continued during a much shorter time than in a case left to nature. If a large subcutaneous effusion of blood occurred at the vulva near the end of pregnancy, as in the second case, an additional reason for this treatment would be that the bloody tumor would, unless removed, prevent the passage of the child; and it would not be wise, for obvious reasons, to defer evacuation of it by surgical procedure until labor occurred.

A CASE OF POSTERIOR TORTICOLLIS, TREATED SUCCESSFULLY BY DELORE'S METHOD.

By E. H. BRADFORD, M. D.,
BOSTON, MASS.

J. H., a boy nine years old, entered the Children's Hospital, May, 1879. Two months before, he had complained of a sudden pain in the right cheek, and was slightly feverish. The next morning the neck was stiff, and swelling was noticeable behind the right ear. This swelling disappeared, but the stiffness of the neck remained without change.

At the time of entrance, the sterno-mastoid muscles were flaccid, but the posterior muscles of the neck on the right side (trapezius, complexus) were tense and hard on palpation. The face was turned to the right in the position of wry-neck, and any attempt to twist it to the left caused pain. Motion to the right was not limited, and was painless. The muscles on the left side were normal, but the left shoulder was held higher than the right. The face had, owing to the continued unnatural position of the head, the peculiar expression often seen in wry-neck, but there was no unilateral atrophy. The patient complained of slight pain, unless he supported his head with his hand, on changing from a vertical to an horizontal position or *vice versa.* Throwing the head out of poise apparently put a strain upon the irritated muscles. Otherwise the child suffered no pain.

FIG. 1.

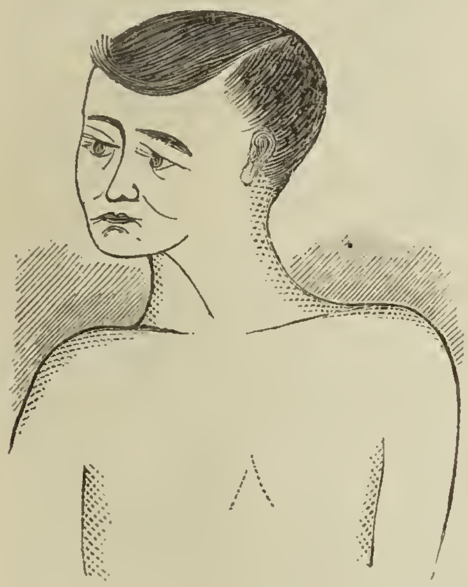
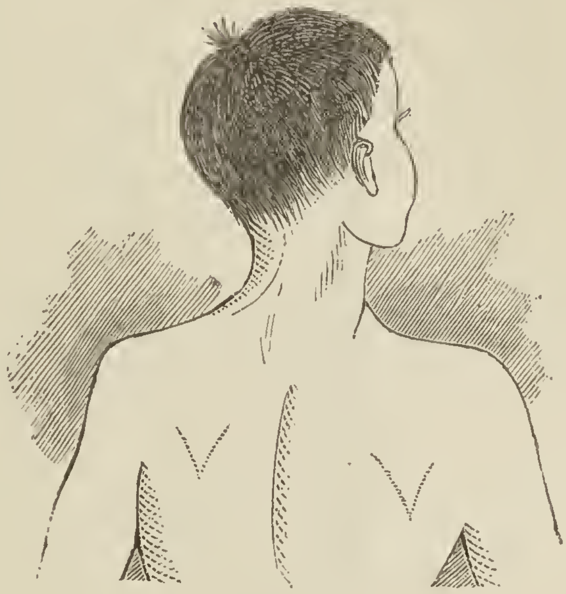


FIG. 2.



For a month the patient was treated unsuccessfully in various ways. The boy was kept in an horizontal position, a poultice was put on to the neck at night, and belladonna ointment rubbed on in the daytime. Leeches were applied on the right occipital region. As there was no change after a week of this treatment, an attempt was made to correct the deformity by mechanical means. A strip of adhesive plaster was applied to the forehead, and a bandage fastened to it and wound about the head; a buckle was then sewn on behind the left ear. A second piece of rubber adhesive plaster was placed on the back, and a buckle attached to the top. A piece of webbing was then fastened into each of these buckles, and in that way the head pulled so as to twist the neck in a direction in opposition to the deformity. A good deal of force could be exerted, but nothing was gained. A plaster-of-Paris jacket was then applied to the child's body, to act as a point of attachment for the buckles instead of the adhesive plaster applied to the trunk.* This also proved ineffectual.

The child was then etherized. The head could be turned in any direction. A pad of cotton was placed on the trunk and on the head, and a light frame of steel applied to the back and head, designed so as to hold the head straight when secured. A silicate-of-potash bandage was then applied around the trunk, including the steel frame, and a second bandage around the head and neck, using figure-of-8 turns to include the chest, shoulders, and head in the same bandage.

Fig. 3.

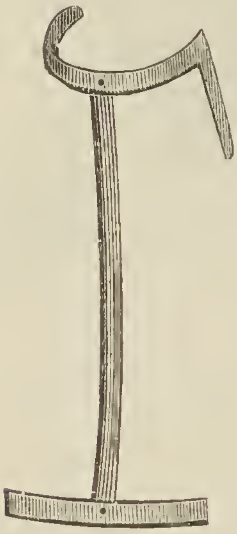
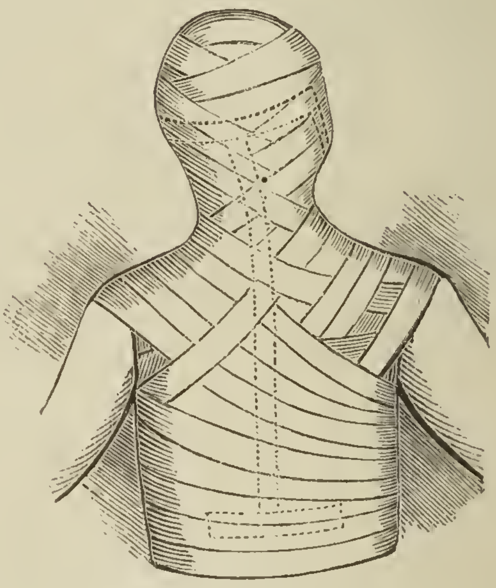


Fig. 4.



After the application of the bandage, which was done with the help of an assistant holding the patient in a proper position, it was impossible for the head to be turned to either side of the vertical. The patient suffered no pain on awakening from the anæsthesia, and played about as usual encased in the silicate bandage, but with no evidence of discomfort. This was worn a month. On its removal, the head was perfectly straight, but the neck was stiff, motion being limited equally in all directions. This, however, diminished, and a month later but little remained. The child was seen two months later, three months after removal of the bandages. There had been no relapse, and the position of the head and the mobility of the neck were perfectly normal.

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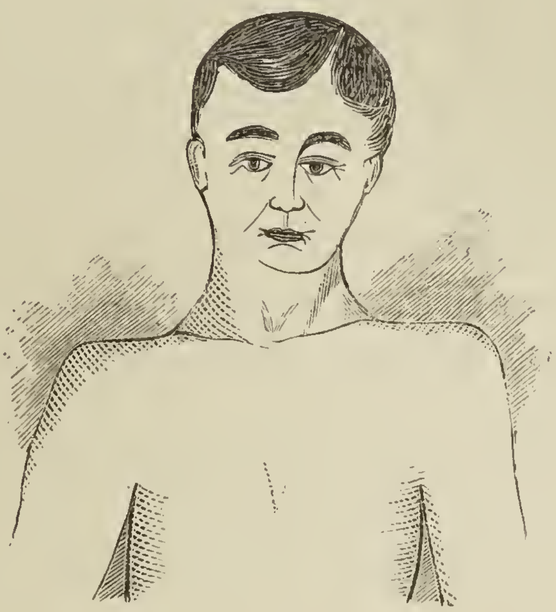
* See "Dublin Journal of Medical Science," August, 1879, p. 117, Swan, for cases treated in a similar way.

This method of treatment was suggested to me by an article in the "Gazette Hebdomadaire," March 15 and 22, 1878.*

Fig. 5.



As the journal is not accessible to all readers, and the article has, I think, not been translated, a few extracts may be of value.

M. Delore recognizes the fact that there are varieties of torticollis. He thinks posterior torticollis, or torticollis due to the permanent retraction of the posterior muscles of the neck, the most frequent form. Out of twenty-two cases, eighteen were cases of the posterior form. In other words, the sterno-mastoid muscle was not involved in a permanent contraction. Any attempt, however, to correct the deformity without an anæsthetic caused a contraction of the sterno-mastoid. Of the patients treated by M. Delore, sixteen were cured without tenotomy of the sterno-mastoid. He describes his method as follows: "The patient, completely anæsthetized, is placed on a low stool. Two assistants, seated, hold the patient, each by one of the arms. The operator seizes the patient's head, and moves it gently, rotating it and bending it in the direction opposite to the deformity. The correction of the deformity is gradually effected. A cracking sensation is sometimes noticed, as the fibrous adhesions yield suddenly. The curved vertebral column rights itself, and in from five to ten minutes the correction is complete. A silicate bandage is then applied around the chest, the neck, and the head, excepting the face. Cotton is liberally applied between the bandages and the skin. Four pieces of pasteboard, soaked in silicate of potash, are placed behind and at the side, and pieces of iron rod to strengthen the bandage."

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* "Du Torticollis Postérieur, et de son Traitement par le Redressement Forcé et le Bandage Silicaté," par M. Delore, Chirurgien des Hôpitaux de Lyon.

M. Delore claims that none of his patients suffered at all either in health or spirits from wearing this apparatus. The ages of the patients whose cases are reported by M. Delore as treated in this way are as follows: ten, eleven and a half, ten, eleven, ten, ten, eight and a half, fourteen, nine years, eleven months, fourteen years, respectively. The deformity had lasted one and a half, three, six, fifteen, eight, four, six, two months, fifteen days, one month and a half. The bandage was worn from one to two months. In four of the cases a retentive apparatus was applied for a while after the removal of the bandage, to prevent relapse. This did not occur in any of them. In two, however, the bandage was removed too soon, and a relapse occurred, corrected by a second application of the bandage. The first of these appears from the report to have been a severe one, but complete cure was eventually gained. The second was still under observation.

The advantages of the silicate bandage are: its thorough efficiency as a retentive apparatus, its cheapness, and the readiness with which it can be applied. Children do not seem to object to it more than to any efficient apparatus. The patient who fell under my observation gained flesh during the treatment. It is, of course, necessary to support the silicate of potash while hardening. Delore did this by applying pasteboard and strips of iron. This is, of course, cumbersome. Plaster of Paris, which hardens much more quickly would be equally cumbersome and much heavier. In the case here reported, as has been already mentioned, the head was held in place by a light frame something similar to that used by photographers to steady the head. A strip of thin, soft, tempered steel was bent in a semicircle; a short piece of steel was riveted at one end at right angles, and at the middle of this semicircle a long strip of steel was fastened, also at right angles to the plane of the semicircle. At the bottom of the long strip a short cross-piece served to steady the whole. The back of the head was placed in the semicircle and bandaged. The trunk was bound by a bandage to the upright, and a few figure-of-8 turns were applied around the shoulders. This steadied the head so that it was impossible for it to deviate from the position in which it was placed.

I am, of course, unable to state in cases of how long standing this treatment by *redressement forcé* would be applicable. Delore's oldest case was of fifteen months' duration. The deformity which fell under my care had lasted only three months, but it was persistent, and would apparently have resisted the usual mechanical treatment for some time. Delore's method was readily applied, caused no pain, and was thoroughly efficient.

CASE OF FIBROUS TUMOR OF THE ABDOMINAL WALL.*

By CORNELIUS WILLIAMS, M. D.,
NEW YORK.

Some months ago Frau R. came to me at Mount Sinai Hospital, with a tumor in the right inguinal region, which was of about the size of a large orange, having an ovoidal shape, and freely movable, though having a fibrous attachment at its upper border to the anterior superior spinous process of the ilium. It seemed to be just under the skin, which was freely movable over it. She stated that the tumor first appeared during gestation, about three years before, and that it was then situated just under the border of the ribs, in the right hypochondriac region; that after delivery it had gradually descended until it had reached its present position. It had been called a rupture, and treated as such.

From its great firmness and insensitiveness, its history, etc.,

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* The history of this case is given by Dr. Williams in a letter addressed to Dr. T. Gaillard Thomas.

I diagnosticated a fibroma, and advised removal. In cutting down upon the tumor, I found that it lay beneath the aponeurosis of the obliquus externus muscle and the peripheral fibers of the obliquus internus with the transversalis, and seemed suspended by two thick fibrous bands—the one attached to the spine of the ilium, as already mentioned; and the other running obliquely downward and inward, and losing itself in the tissues. After careful dissection, I passed my fingers around it, and, dividing the mesial band, turned the tumor outward, and separated it from its attachment to the bone. On lifting the tumor out of its bed and detaching it, which was done in a moment, there sprang into the gap a mass of glistening material which looked unpleasantly like intestine, for which it was at first mistaken. It proved, however, to be unwounded peritonæum. The wound was closed with deep and superficial sutures, and, by ill advice, a drainage-tube was put in. The wound was then covered with cotton, and an obstetric bandage was applied.

The next day the rubber tube, which had become clogged, was withdrawn, and a horsehair drain substituted. On the third or fourth day, there still being considerable oozing, although no pus, there was union by first intention of the superficial portion of the wound. The skin had an erysipelatous blush. The drain was withdrawn, and the canal of the wound syringed out and treated antiseptically. There was then, and for some time afterward, a decided fæcal odor emanating from the wound. The large intestine became adherent to the peritonæum at this point, as shown by the sense of "pulling" felt by the patient when she attempted to lie upon the left side. She made a slow but good recovery. The temperature never went above 100° Fahr., and she had no symptoms of general peritonitis, except considerable tympanites. The tumor was about four inches in length by about three in its shorter diameter. It was firm and distinctly fibrous on section. No microscopic examination was made.

No spray was used. I am quite satisfied that, if I had stopped all oozing, and simply closed the wound as I did, covering it with the compress and cotton, I should have procured union *per primam*.

Lectures.

A CLINICAL LECTURE,

By ALFRED L. LOOMIS, M. D.,
PROFESSOR OF PATHOLOGY AND PRACTICE OF MEDICINE IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

(Reported for the New York Medical Journal.)

PART I.

ACUTE YELLOW ATROPHY OF THE LIVER.

Gentlemen : Before introducing any patients to-day, I wish to call your attention to some morbid specimens which have been taken from the body of a woman who was admitted to Bellevue Hospital three days ago, and died there this morning at ten o'clock. The organs that we have here are the heart, lungs, liver, kidneys, and spleen. The patient was very deeply jaundiced when she came to the hospital, and the discoloration gradually became more and more marked up to the time of her death. Her morning temperature was about 99°, and her evening temperature 102° to 103°. The highest that it ever touched was 104°. The pulse ranged from 120 to 130, and was small and feeble. The urine was found to contain epithelial casts and albumen ; and nausea and vomiting were prominent symptoms. Last night she was seized with a convulsion, and this was followed by profound coma, which continued up to the time of her death. At the time of her admission the percussion-dullness of the liver was found to extend over a more limited area than normal, and the outlines of the organ were carefully mapped out in order that any subsequent change that occurred in them might be noted.

You observe that all these organs are very deeply stained with bile. The freshly-cut surface of the liver presents a mixed appearance, such as is entirely characteristic of the affection of which the patient died, viz., acute yellow atrophy of the liver. There are white and yellow granules observable, interspersed throughout the ordinary hepatic tissue, and at certain points there are bands of connective tissue which are probably the result of older trouble than that from which the patient was suffering at the time of her death.

The kidneys are also found to be granular and fatty, while there is nothing especially abnormal about the spleen or the heart. The lungs, too, are normal, with the exception that in some portions they are more or less œdematous. I am informed that on the surface of the brain two or three apoplectic extravasations were discovered.

The diagnosis of acute yellow atrophy of the liver can not easily be made unless the patient continues under observation for some time, and in forming our opinion of such a case we must always take into consideration the rarity of the disease. A deep jaundice coming on in an individual with a small liver, a high temperature, and a certain amount of cerebral disturbance (which is to be attributed to blood-poisoning), should lead us to suspect this affection, although these symptoms may also possibly be met with in others, such as "yellow intermittent," for instance. In yellow fever, it is well to bear in mind that the liver, instead of being diminished, is increased in size. In connection with the above signs, we have in acute yellow atrophy of the liver a diminution of the quantity of urine (sometimes, indeed, there is complete suppression), with epithelial and granular casts and the presence of albumen. This patient said that she had been jaundiced for nearly three weeks before her admission to the hospital, and this comparatively long course would seem to point away from acute yellow atrophy of the liver here; but in a certain proportion of cases the disease seems to come on quite gradually, and not to terminate so rapidly as is ordinarily the case. The majority of instances of the disease are found among women, and it is more apt to occur during pregnancy than at any other time.

In this case the diagnosis was not positively made out before death, although there seemed to be a strong probability that the disease was of this character. Of the cases of acute yellow atrophy which have occurred in Bellevue Hospital, I remember one that was mistaken for yellow fever, another for obstructive jaundice, and a third for intermittent fever. In forming a diagnosis of this affection, the chief points on which I should rely would be the small size of the liver, the cerebral disturbance, and particularly the urinary changes.

In this connection, I may mention the case of one of our graduates who was taken to Roosevelt Hospital. He was supposed by those who first saw him to be suffering from typho-malarial fever; but I made the diagnosis of acute yellow atrophy of the liver, from the fact that albumen and casts were found in the urine. The only trouble about the significance of the urinary signs is that these may occur in other diseases of the liver also; but, taken in connection with the other characteristics mentioned, they are to be regarded as of very great value.

As to the pathological nature of the disease, I think it must unquestionably be regarded as an albuminoid hepatitis, and to be classed, therefore, among the inflammatory rather than the degenerative processes. All the cases of it, so far as I know, end fatally, and, as a general rule, in a very short space of time. They are apt to terminate, as in this instance, in convulsions followed by coma, which are due to uræmia combined with cholæmia.

The appearances of the liver in the present case seem also to indicate an alcoholic condition, and I learn that the patient finally acknowledged that she had been addicted to intemperate habits; although at first she denied this.

CATARRHAL PHTHISIS.

The young girl whom I now introduce to your notice says that she has been sick for six months. She took cold six months ago, by getting her feet wet, during menstruation. The flow suddenly ceased at that time, and has never returned since. Up to this she had always been regular in her monthly periods. When she took this cold she suffered from pain in the limbs, back, sides, and, in fact, all over her. It was most marked in the sides, however, and she also had a bad cough. Previously, however, she had had a dry hacking cough, and her mother says this had lasted since childhood. She had never had any expectoration, and had always enjoyed most excellent health. But after taking cold six months ago she began to raise phlegm, which was at first white and then yellow, but never contained any blood, and was now of a greenish color. It was quite copious at first; but since then has diminished in quantity. Her occupation was not conducive to good health, as she was obliged to work among paints and acids, of which she inhaled the fumes.

About a week after she took this cold of which she has spoken, she began to lose flesh, and the emaciation has continued to progress ever since. She was not confined to bed, but she was obliged to lie down a good deal of the time on account of pain and fatigue. The pain was worse in the right than in the left side, and she could not lie on the right side at all. When she tried to do so she had considerable pain in the shoulder and back, and the cough was also aggravated. She was troubled besides with headache and dimness of vision, she says. The loss of flesh was not rapid, but gradual, and about a month from the time that she took cold she began to suffer from shortness of breath in addition; so that when she went upstairs she sometimes felt like fainting. There is no hereditary taint whatever, so far as I am able to learn from the mother, who is, as you see, a perfectly healthy-looking woman.

Now, gentlemen, you have heard the history. What do you expect to find? "Phthisis," I hear suggested. Why? "On account of the history and the appearances presented by the patient." You will observe that she is excessively anæmic, and the anæmia is of a different character from what we should expect in chlorosis, for instance, when we should probably have in connection with it swelling about the face or feet. Here, I am informed, there has never been any œdema whatever. But what kind of phthisis have we in this case? "The non-tubercular form." And why? "Because we have the history of an acute cold." Yes, that is a strong point in favor of this kind of phthisis. The patient was a perfectly healthy and rosy-cheeked girl up to the time she took this cold, with no disturbance of digestion and no emaciation. In the majority of instances of tubercular phthisis we have anæmia, ema ciation, and interference with the digestive function coming-on gradually. In this case, however, there is one point which seems in favor of a tubercular origin of the trouble present, and that is the hacking cough that existed so long. This in a girl of her age is generally due to dry, localized pleurisy, situated in the upper part of the lungs. If you listen to the chest in such cases you will find a certain amount of feebleness of respiration, and at the end of inspiration a little creaking sound. When you recognize these signs you know what is coming, unless active interference is made; and, by insisting on a complete change of the mode of life and the use of appropriate remedial measures, you will probably succeed in making a permanent cure. Do not understand me to say that this is a tubercular pleurisy—I mean simply that the long-continued hacking cough is produced by this localized pleurisy.

Let us now endeavor by means of a physical exploration to discover whether in this case we really have catarrhal or tubercular phthisis. In making an examination of the chest, the first thing that we are struck with is the extreme emaciation of the patient, although there is not very much falling in under the clavicles. What there is of this, however, is considerably more marked on the right side than on the left. Vocal fremitus is also much more marked on the right side than on the left. On practicing percussion, we find that there is great dullness on the right side, both before and behind, and not only at the apex, but all over the area of the lung. On the left side, on the contrary, there is normal resonance. When we place the ear to the chest, we get ordinary vesicular respiration over the entire left lung; but on the right side there are both blowing inspiration and blowing expiration, with gurgling *râles*, when the patient coughs, at the apex, while over the lower portions of the lung there is complete absence of the respiratory murmur.

We find, then, that there is consolidation of the whole of the right lung, and that, in place of normal vesicular breathing, there is bronchial respiration in the upper part. While, however, we get some bubbles and crackling at the apex, there is no distinctly cavernous respiration, and I am not able to detect any cracked-pot sound on percussion while the patient's mouth is open. From such a cursory examination as this I should not be willing to give a positive opinion in regard to the matter; but, as far as I am able to judge at present, I should be inclined to think that there are no evidences here sufficiently marked to indicate the presence of a cavity. It is true that we have well-marked blowing inspiration and expiration; but it is not as amphoric in pitch, I believe, as it would be if there were a cavity.

The condition of the right lung is one of universal infiltration, accompanied by a considerable amount of pleuritic thickening. There can be no doubt that this state of affairs has been due to a pleuro-pneumonia, either of an inflammatory or of a tubercular nature, coming on gradually and progressing in an insidious manner. I should take it to be non-tubercular in character from the fact that, while the one lung is so markedly diseased, the other remains entirely unaffected. When the patient was taken ill, six months ago, she could not locate the trouble particularly in any one part of the body; but after a time she became aware that the right side was the principal seat of the difficulty she experienced. In her case it gave rise to pain and coughing to lie on the affected side; but sometimes the reverse of this is true. It is enough for us to know, in any instance, that the patient can lie on one side better than the other to feel pretty certain that some pathological process is going on in the respiratory organs. It was probably a low form of pleuro-pneumonia from which she was suffering. Very likely she had a certain amount of pain; and we know that she began to lose flesh pretty steadily. The expectoration was non-purulent in character. It has never been of a greenish color, and she says that it has been growing lighter in appearance of late. She has never had any hæmorrhage whatever, and she has never suffered from diarrhœa.

All these signs point toward a phthisis resulting from an unresolved pleuro-pneumonia. As to the final result, however, it does not make much difference which form of phthisis is present here. [The patient had now left the room.] If it were of a tubercular character, the process would be more rapid; and, indeed, I think it would in all probability have run its course before this. If the disease is of a catarrhal nature, as I believe it to be, she now has a cheesy pneumonia occupying the whole of the right lung; and, if its tissue has not already broken down sufficiently for the formation of cavities, it is not difficult to see that this will soon be the case. The patient will inevitably die from septic fever resulting from degenerative changes taking place in the lung, and probably within three or four months; for at her age there is no possible chance of recovery, especially when such a large amount of lung-tissue is involved.

If the disease had been taken in time, however, it is probable that her life might have been saved. In such cases the physician has a very hard battle to fight, but, under ordinarily favorable circumstances, he can usually come off victorious if he exerts himself to the utmost. If, when the suppression of the menses was first noticed, the medical man in attendance had made a careful examination of the chest, he might have advised such changes in the patient's mode of life, and given such remedies, that the pathological process which has since progressed to such a frightful extent might, perhaps, have been cut short, and the sad results which we find to-day have been averted.

A CLINICAL LECTURE ON

ELONGATION OF THE CERVIX UTERI DEPENDENT UPON CONGESTION CAUSED BY EFFORTS TO PREVENT CONCEPTION.*

By WILLIAM GOODELL, A. M., M. D.

Gentlemen: I bring before you to-day an exceedingly interesting case of elongated cervix—interesting both on account of the size of the growth and by reason of its cause. The patient, a white woman some thirty years of age, tells me that she has been married for about ten years, and that a child was born very soon after marriage. Now, gentlemen, this fact of children is generally a very unpleasant one to newly married couples, and they not infrequently make use of methods to prevent conception. If you ask me what I think of this interference with the due course of nature, I tell you very candidly that I always hold it to be a very great sin unless there be, indeed, some imperative necessity for the performance of abortion, or the prevention of conception, such as the existence of a narrow pelvis, etc. I hold that the woman who thus attempts, or sanctions the attempt, to thwart the proper consequences of coition becomes a man's mistress, and is no longer his true wife. The method of preventing conception employed in the present case was that by the withdrawal of the male organ before the completion of the sexual orgasm and the ejaculation of the semen. The result of all this was, and has been, of course, that the congestion of the uterus and vagina consequent upon the act was not relieved, but that the parts were each time left congested and erected, thus giving rise to a condition of constant irritation. Upon the other hand, the crisis of the act is not wholly reached on the husband's part, and the vasa deferentia do not completely empty themselves of the contained semen, hence his organs are also kept irritated.

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* Delivered at the Hospital of the University of Pennsylvania.

You see the story of these repeated congestions of the female genitals told by this enormously elongated cervix, which is hanging in plain sight far out of the vagina. The os is unusually large in this instance; indeed, I am led to believe that coition has, of late, taken place altogether in it. It indeed gapes so much that I can get a good part of my forefinger into it without any exertion. This is the longest womb but one that I have ever encountered in practice. Passing my sound in, I find that it goes a great way up—some *six inches* in all. This state of affairs is very unusual, and shows that the fundus of the womb, though depressed, is still high up. This elongation of the cervix bears a very curious resemblance to the sheathed penis of the horse. You notice these hypertrophied papillæ of the *arbor vitæ* of the cervical canal, and these two large, raw ulcers. The latter have no doubt been caused by the combined effect of the attrition of the parts against the woman's clothing and the irritation set up by the urine dribbling over the raw flesh.

But let me digress for a few moments in order to furbish up your knowledge of the anatomy of the parts concerned.

The womb is generally described as having a body, or corpus, and a neck, or cervix. The latter is divided into two unequal parts—the glandular portion, containing the Nabothian glands, which is comprised between the os externum and the os internum, and the non-glandular portion, or isthmus of the cervix, viz., that intermediate and contracted portion which unites the fusiform and glandular cavity of the neck to the triangular cavity of the body. The outside length of the healthy multiparous womb is about three inches. The glandular portion of the cervix measures approximately one inch and a quarter, the isthmus one half of an inch, and the body one inch and a quarter.

By the terminal fibers of the vagina, which gird it at the middle third of its glandular portion, the cervix uteri is still further divided into the infra-vaginal and the supra-vaginal portion. The free extremity corresponds to the infra-vaginal portion, about which there is no dispute. But the supra-vaginal portion of the cervix, as commonly described, is that portion of it which lies between the apparent vaginal insertion and the os internum. Anatomically, this portion of the cervix is limited to the isthmus, and is therefore above the glandular portion. For, although the bulk of the vaginal fibers lie below the internal os, and the surface of attachment is to the eye a narrow one, yet, in reality, it is a broad one, covering two thirds of the cervix, and reaching up to the os internum, where its fibers end.

Again, the base of the bladder rests upon the anterior wall of the vagina, to which it is fused by connective tissue, and it is also firmly attached to the anterior aspect of the cervix as far up as the os internum. These fibers of attachment are so closely blended with those of the vagina that the supra-vesical portion of the cervix is practically the supra-vaginal portion, and each, therefore, lies above the os internum, and consequently above the glandular portion of the cervix. The term prolapse, as applied to elongation of the supra-vaginal portion of the cervix, is a misnomer, because the cervix protrudes from the vulva more from elongation than from displacement.

When we come to examine the cervix, we find that there is an eversion of the lips, and a partial rolling out of the *arbor vitæ.* It constitutes, in fact, an imperfect attempt at an eversion of the glandular portion of the cervix, in which the loose mucous lining has participated to an extent greater than that of the more resisting parenchyma. This condition of the cervix seems to be owing not so much to the hyperplasia of its parenchyma as to a thickening of its mucous investment, to the gaping open of an os enlarged by coition, to the turgid papillæ of the cervical canal, and to the exuberant growth of its submucous layer.

See this opening at the apex; it is not the external os, as you may think, but a portion of the canal much higher up. Here, about an inch from it, and describing an irregular margin around it, is the os externum. The posterior portion of the vagina has been inverted. There is, in other words, no vagina posteriorly.

The methods employed to prevent conception have given rise to a permanent congestion of the parts, and this has resulted in a local nutritive energy, which have produced first heaviness and then dragging. When the vagina becomes heavy, if the ligaments are fixed, the cervix gets to be elongated; if they are not fixed, the womb becomes prolapsed.

What are we to do for the woman? She does not suffer much, but it is a very unsightly and inconvenient state of affairs. Moreover, she bleeds considerably at her monthlies, and coition, as I have already remarked to you, seems to have taken place entirely of late in the external os, which is on that account more enlarged than the congestion alone could have brought about. What are we to do? The patient comes here to see what can be done for her. There are two things which we shall immediately proceed to do: (1) I shall remove a portion of the elongated cervix. As a result of this operation, an extensive raw surface will be left behind, which will cause retrograde metamorphosis. Two months from now, I feel quite sure that this patient's uterus will measure less than it did in its virgin state. This will be our first operation. When the woman gets over its effects, we may have the second (2) operation to perform, of denuding a V-shaped portion of the perinæum and vagina, and putting some stitches in. This will only be necessary if the fundus still remains low down and the natural elasticity of the perinæum seems slow to reassert itself.

Now, in order to remove the superabundance of tissue in the cervix, I might just pass the loop of wire over the end of the growth and proceed to cut it off without any further ado. If I were to do this, I might cut off a piece of Douglas's pouch; for it is impossible to discover just how low down it lies. This being the case, the only proper *modus operandi* consists in removing the cervix at its vaginal junction. The bladder, too, in such cases is also prolapsed, as you have just learned; and, if I were not to be careful in cutting, I might remove part of the bladder with its peritoneal covering.

I first clean a sound, and pass it carefully into the bladder. If I were not to clean the sound, I might give rise to an attack of cystitis. The sound may enable me to find out the position of the bladder, that is, if I can manipulate the instrument properly in the limited space allowed me by nature. I should be ashamed to cut into the bladder, and so I will map out its site as carefully as I can. A careless cut might open into Douglas's pouch behind and the bladder in front. Indeed, to render assurance doubly sure, I shall use a dilator, and enlarge the urethra so as to enable me to get my little finger into the bladder. It is hard to get into the bladder here, owing to the traction which the prolapsed uterus has exerted upon the urethra. No doubt that the constant difficulty which this woman has experienced in passing her water has been largely due to this same traction.

I am not ready to assert that impregnation may not occur while this condition of affairs (elongated cervix) exists; but it usually does not take place, for it is likely that the same epithelial changes have taken place above as are evident below, thus preventing the possibility of conception; and, when the woman wants a child, she finds that she can not get one. Numbers of women come to me to see if I can not render their wombs again fruitful after many years of induced sterility.

I am trying to show you the proper way to dilate the female urethra; but I am doubtful whether I can succeed in getting my little finger into the bladder without consuming too much of my time.

I have not yet got the second joint of my little finger into the bladder; but I am gradually working it in. I should advise you to take more time, as a general rule, in performing this operation of dilatation than I am doing. At last I have succeeded in getting my finger well in, so that I may at once proceed to put the wire loop in place. I am going to use the galvano-caustic battery. I have now got my finger well down upon the lowest part of the bladder, and shall proceed to tighten the caustic wire loop. I am always nervous lest I may cut into Douglas's pouch in these cases. It is generally found to lie above the vaginal junction, but the rule is not without exceptions. I shall have to run my chances after having eliminated every possible error.

The cervix is very large and the wire is not small, so that it burns its way through but lazily at first. The current is going slowly, but nicely. I now tell my assistant to interrupt it for a moment, for if I cut right straight through there would be great danger of secondary hæmorrhage. As the wire loop becomes smaller the heat becomes more intense. There are some big vessels in this cervix which I feel pulsating here. The galvano-caustic battery is a very beautiful instrument, but an equally capricious one.

Here, the end of the cervix has come entirely away. It looks very much like a piece of potato cut off with a very rusty knife. These layers, which you see so marked on the surface of the wound, were caused by the alternate breaking and making of the galvanic current. I am going to examine carefully at once and see if I have touched the bladder or Douglas's pouch. No; they have not either of them been injured. I might, perhaps, have taken off a larger slice, but I have studiously kept on the side of prudence. If I had cut into these cavities, in addition to the danger of traumatic peritonitis, I might have had to perform the operation for vesico-vaginal fistula. There is some objection to the use of the galvano-caustic battery, in that it may cause too much cicatricial contraction of the os, but this rarely happens, owing to the great size of the part.

What after-treatment shall I order? I will not denude the perinæum to-day, for there is risk of secondary hæmorrhage from the wound. I shall simply put the patient upon a supporting treatment of milk and beef-tea. Do not stretch the patient's legs so far apart (to assistants). A woman coming out of the influence of ether after such an operation suffers a good deal of soreness if the legs have been forcibly stretched apart.

In the course of a couple of days a purulent discharge will be, no doubt, set up, when I shall order the parts thoroughly cleansed with a solution of the permanganate of potassium. The temperature of the patient, as taken in the rectum, will probably run up as high as 101° to-night. If it remains so high to-morrow I shall put her at once upon large doses of quinia—doses of from twenty to thirty grains in the course of the twenty-four hours. I shall give her this quinine in doses of ten grains at a time. Ten grains given in one dose is a more powerful means of reducing a high temperature than two grains given every two hours.

Upon one occasion, some years ago, I performed an operation like this, and a furious peritonitis was set up. I did not cut into Douglas's pouch or the bladder; but I must have scorched the former, for the patient died in the course of forty-eight hours. Since then I have performed the operation very often, and with invariably good results.

The danger of the occurrence of secondary hæmorrhage is my principal objection to the use of the caustic wire. The cold wire is better in this respect. Still the hot wire cuts cleaner, while the cold wire, or *écraseur*, is but too likely to drag the surrounding tissues into its embrace. I had two reasons for employing the galvano-caustic loop today: (1) the fact, which I have just mentioned, of its doing cleaner work, and (2) because I wished you to become acquainted with its appearance and use.

As I said to you some moments ago, there has been considerable functional loss of power in the perineal tissues, which may necessitate the performance of a secondary, or rather, subsequent operation upon the parts, i. e., I may have to denude the edges of the vulva in the form of a horseshoe, and bring them together with stitches. However, the operation already finished may be enough.

In dilating the urethra I may have caused what often occurs in such cases, viz., a slight laceration of the urethral muscular tissues and mucous lining. Careful examination shows, however, that this has not occurred in this case. The laceration usually takes place on the anterior margin of the meatus urinarius.

This case has been a very interesting one, and I think you have learned a good deal from it. You notice that the nymphæ of this patient are considerably more elongated than is usually the case. As a general thing, when we find the nymphæ thus elongated, particularly in unmarried women, it means masturbation, but the proof can scarcely be considered as absolute. When the nymphæ are so elongated, they are known as "aprons." In the Hottentot women the nymphæ grow so long as to hang far down and entirely conceal the parts, so that when coition takes place they have to be held apart. The elongated nymphæ resulting from masturbation are produced by the long-continued rubbing, or to and fro movements —the act of masturbation in women being much prolonged. Why the nymphæ are elongated here I can not tell; it may be due to the fact that coition, occurring partly externally, has been very much prolonged.

To fill up my hour, let me dwell a moment upon dilatation of the urethra. A patient, we will suppose, comes to you complaining of frequent micturition and dysuria. She tells you that she is obliged to pass her water from twenty to forty times during the day, and that she rises five or ten times in the course of the night. Her physician has given her belladonna, carbonate of sodium, buchu, and what not, without any alleviation of the distressing symptoms. What can you do for her? The only thing to be done is to dilate her urethra. When you have enlarged the part sufficiently with the instrument, take your little finger and oil it, and carefully work it into the bladder. Then enlarge the passage further with your index finger. The reason why a woman can hold her water so much longer than a man is owing to the fact that the whole length of the female urethra is encircled with muscular fibers, while in the male the muscular bands are only at the neck of the bladder. It is these fibers which are paralyzed by over-stretching.

I venture to say that even as soon after the operation as this moment I shall find the womb greatly diminished in length. I pass in the sound again, and it only indicates a total length of three and a half inches. What is the reason of this? The piece of the elongated cervix which I have amputated does not measure more than one inch and a quarter in length. The reason is clear. The cervix, which was like an overstretched rubber band, has sprung back and condensed the womb. I do not think a second operation will be needed.

[Three weeks later the woman was brought again before the class. The wound had not wholly cicatrized, but the cervix lay so high up that it was with difficulty exposed to view. The sound gave a measurement of less than two and a half inches. A slight secondary hæmorrhage had taken place on the fourth day, which was stopped by plugging the vagina with a sponge dipped in vinegar. No other untoward symptom had occurred.]

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Editorial.

Farewell.—With the last number, for December, 1879, of "The New York Medical Journal," the undersigned, in consequence of increasing professional duties, retired from its editorial management. In introducing his successor, Dr. Frank P. Foster, a gentleman already well experienced in journalism, he bespeaks for him the same kind and courteous treatment on the part of contributors, subscribers, publishers, and contemporaries, that he has himself enjoyed during his service of nine years as editor of that journal.

James B. Hunter, M. D.

The undersigned, having had more or less to do with medical journalism for a number of years past, has a lively sense of the burden which he has taken upon himself in trying to fill the place of the retiring editor. He is well aware that, to make a journal of this sort what it should be, his work must never cease. He is ready to face this state of things. While aware, too, that he will be judged by his work rather than by his promises, he thinks it no more than common fairness to give the reader an outline of the course that he means to follow.

In the section set apart for "Original Communications," long papers of a theoretical or ultra-scientific tenor will generally be avoided. While not underrating their value, it is thought that they are more suitable for the quarterly journals. The purpose will be to give short, practical articles, covering in their scope the whole range of medicine. Histories of cases will properly come under this head, but, unless of unusual importance, they will be given only when they are made to serve as the groundwork for such commentary as seems to be of value.

Original "Lectures," chiefly clinical, will figure regularly. In selecting them, chief heed will be paid to the author's fitness for that special work—the art of bringing out the symptoms and signs of disease, and of analyzing them and interpreting them when grouped irregularly, as they are so often found in practice and so seldom in books.

Under the head of "Clinical Reports," histories of interesting and instructive cases occurring at the hospitals and other public institutions will be given regularly. It is intended to make this a decided feature of the journal.

The "Proceedings of Societies" will be given in abstract, and the process of condensation will be carried as far as may be compatible with the due presentment of matters of real importance.

Under the head of "Reports on the Progress of Medicine," the contents of contemporary journals will be freely referred to, and their most important matter given in abstract. To a great extent, this will be done in the form of quarterly reports in the various branches of medicine.

New books will be reviewed critically, and, when circumstances call for it, analytically—for the information of the reader, rather than to please the author.

In the editorial pages, matters of interest to physicians (and not of necessity strictly medical) will be treated of with a freedom of style which would be inappropriate in the other departments. What may be called medical politics will doubtless at times come to be spoken of—always, it is hoped, in a manner to gain respectful attention, and never to give good ground for offense.

Frank P. Foster.

Clinical Reports.

BELLEVUE HOSPITAL.

Reported by Gaspar Griswold, M. D.

CIRRHOSIS OF LIVER; ASCITES; SCANTY URINE; SUCCESSFULLY TREATED WITH MILK, AFTER FAILURE WITH DIURETIC DRUGS.

(Service of Dr. E. G. JANEWAY.)

F. B., a widow, twenty-three years of age, and a domestic by occupation, was admitted to the hospital November 1, 1879. She gave a history of having drunk spirituous liquors to excess for three or four years. Several months before her admission she began to suffer from what she considered to be indigestion, attended with nausea and vomiting, and occasional attacks of diarrhœa. She gave no history of hæmatemesis or bloody evacuations from the bowels. At the same time she noticed that she was slightly jaundiced, and that her abdomen was beginning to swell. The ascites rapidly increased, and œdema of the lower extremities soon made its appearance. At the time of her admission the patient was very weak, had no appetite, and suffered from dyspnœa on slight exertion. The ascites and œdema of the feet and legs were very marked. Percussion showed the spleen enlarged, the liver diminished in size. There was slight jaundice, but the fæces were colored with bile, and there was no constipation. The urine was high-colored, alkaline, and passed in very small quantities; its specific gravity was 1·030; it contained no albumen or casts.

The total amount voided during the twenty-four hours next after her admission was only eight ounces. She was ordered infus. digitalis f℥ss, with potass. bitart. ʒj, every three hours (to be omitted during the night). From this time until November 3d (twenty-four hours), she passed five ounces of urine, and on November 4th had passed only six ounces more. From the day of her admission until November 18th the average amount of urine voided by her in twenty-four hours was only eleven ounces; and this in spite of the continued administration of the above mixture. The ascites still increasing, the patient was tapped on November 20th; owing to her weakness, it was found necessary to suspend the operation when only six pints of fluid had been withdrawn, although the abdomen was still much distended. The effusion reaccumulated very rapidly, and, the urine continuing very scanty, she was ordered spir. ætheris nitrosi fʒj and potass. acetat. gr. x, every three hours, except during the night. The digitalis and potass. bitart. had not been given since the operation, December 1st. Average amount of urine in twenty-four hours since November 18th, fourteen ounces. Ascites greater than before the operation. Administration of spir. ætheris nitrosi and potass. acetas suspended. Patient restrained from taking solid food, and encouraged to drink large quantities of milk—three to five quarts daily. No medicinal treatment. Under this regimen the excretion of urine was increased as follows: December 1st, 19 oz.; 2d, 39 oz.; 3d, 66 oz.; 4th, 50 oz.; 5th, 56 oz.; 6th, 54 oz.; 7th, 50 oz.; 8th, 69 oz.; 9th, 74 oz.

10th.—Since last note there has been a rapid diminution of both ascites and anasarca. The patient's feet and ankles are no longer swollen, and her abdomen is scarcely larger than normal. The jaundice has disappeared, the appetite is better, and general improvement is marked.

THORACIC ANEURISM WITHOUT CARDIAC HYPERTROPHY; COMPRESSION OF TRACHEA; DEATH FROM ASTHENIA.

(Service of Dr. A. L. LOOMIS.)

G. M., a man sixty years of age, an Italian, and a cook by profession; admitted to the hospital December 9th. A good history was not obtained, nor were signs of syphilis made out. The patient was very weak; his voice was husky, and he complained of dyspnœa and of a pain, with soreness, in the left infra-clavicular region. At the junction of the second rib with the sternum on the left side there was dullness on percussion, pulsation visible and easily appreciated on palpation, and a distinct blowing murmur on auscultation. Large and small bronchial *râles* were audible all over the chest posteriorly. The patient's dyspnœa continued to increase until his death on December 11th. On post-mortem examination, there was found a large sacculated aneurism of the transverse arch of the aorta, compressing the trachea and the left primary bronchus, and dragging upon the left recurrent laryngeal nerve. The aortic valves were normal; there was atheromatous degeneration beginning at the transverse arch and extending into the abdominal aorta. The heart was normal and showed no signs of hypertrophy. The bronchial tubes, even to those of small caliber, contained large quantities of mucopus. The other viscera showed nothing of importance.

MOUNT SINAI HOSPITAL.

Reported by J. J. Reid, M. D.

SYNOVITIS OF TENDONS OF THE WRIST.

A man entered the hospital presenting a painful swelling of the wrist, the outline of which closely resembled the deformity of Colles's fracture. No crepitus could be discovered, and there was no history of injury. He said that he had had an attack of gonorrhœa, and that one morning he awoke with pain in the wrist, with swelling. The gonorrhœa ceased with the onset of the latter. The arm was placed in the hot pack, and a splint was applied to insure rest. When the swelling subsided, it was readily seen that the wrist-joint was not affected, and that the cause of the trouble was synovitis, affecting the tendons upon the anterior and posterior surfaces of the radius. With the subsidence of the synovitis, the gonorrhœa reappeared, and continued at the time of his discharge from the hospital.

FAILURE OF IODINE TO CURE INTERMITTENT FEVER.

Dr. E. H. Fridenberg, the House Physician, tried the effect of iodine in a series of twelve cases of intermittent fever. The tincture was administered in ten-drop doses every four hours, night and day. In one of the cases there was slight benefit, but in the others no advantage whatever. Dextro-quinine was given to the patients in whom iodine had proved valueless, and succeeded in curing the disease.

"SQUIRRHE EN CUIRASSE"; DEATH.

The woman with "*squirrhe en cuirasse*," whose case was reported in the October number of the "Journal," was admitted to the hospital in October. Previous to her death, the disease extended backward, and involved the skin of the whole of the left scapular region, upward as far as the occipital protuberance, and downward to the border of the lower rib of the right side. There was but slight advance anteriorly. Pain continued till the end, and was localized in the right shoulder and side. For two days before death she had stercoraceous vomiting.

Autopsy.—The skin was much thickened. No microscopical examination was made. There was stenosis of the pylorus from cancerous deposit. The pancreas was almost completely involved by a neoplasm, and was attached to the duodenum. The duodenum, at the point of attachment, was nearly occluded. There were no other causes of stercoraceous vomiting observable. The liver, as well as the mesentery, contained cancerous matter.

CARCINOMA INVOLVING THE BONES.

A woman, aged forty-five, entered with a cancerous tumor of the breast, which had been growing for four years. It was excised, but reappeared. It was again removed, sixteen months elapsing between the two operations. When she was discharged from the hospital, she complained of sciatica on the left side. Four months after her last discharge she returned to the hospital with a fracture of the right femur, which she said occurred when getting out of bed. She sustained no blow or fall--the fracture being due to the ordinary movements of the limbs in arising. On examination, a nodular mass, of the size of an orange, was found at the point of fracture. It was not tender on pressure. The femur united readily, but at the time of the report was not sufficiently strong to bear the weight of the body. The sciatica persisted in the left or unaffected side. No tumor of the bone or soft tissues could be made out.

SARCOMA OF THE GRACILIS MUSCLE.

A patient complained of a tumor in the thigh. It was cut down upon, and found to be an encapsulated sarcoma of the gracilis muscle. The capsule was very distinct. Four months subsequently it returned near the cicatrix. It was again removed. At the second operation the capsule, though present, was not so well marked as at first. Three weeks after the second operation nodules appeared near the cicatrix.

GLUTEAL ABSCESS—FAILURE OF THE ANTISEPTIC TREATMENT.

An extensive abscess in the gluteal region is at present under treatment, and is of interest, as showing that in some cases the antiseptic treatment does not secure any better results than were formerly obtained by other methods. A butcher, in ordinary health, received an injury to the buttock by falling against a projecting hook in a wall. Two days subsequently he felt pain at the point of injury, and in a short time an abscess formed. Two quarts of pus escaped, and in a week an abscess was opened on the other buttock, though it had not been injured. The man was taken to the hospital, and the abscess was dressed in the antiseptic manner, with thorough drainage. No improvement took place, the suppuration extended, and undermined the skin and subcutaneous tissues, giving rise to cutaneous sloughing. The present appearance is very bad, the suppuration and sloughing process having extended down on the thigh.

Proceedings of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, November 6, 1879.

Dr. Fordyce Barker, President.

Report of the Children's Department at Mount Sinai Hospital.—Catalepsy, Osteo-sarcoma, Lipoma, Typhoid Fever.

Dr. A. Jacobi read a report of the more important cases which had been under observation at the children's department of Mount Sinai Hospital. He was influenced in making this report by the conviction that medical men in attendance upon public institutions should convey to their professional brethren the results of their experience.

Catalepsy in a Girl of Three Years, suffering from Typhoid Fever.—The patient entered the hospital September 4, 1879, in the second week of typhoid fever, and passed through the ordinary course of the disease till September 25th, when a slight spasm of the eyelids was noticed, accompanied by a free flow of urine. The eyes were turned upward, so that only the lower half of the pupil could be seen.

September 26th, 8 a. m.—When the arms were lifted up in any position, they remained so till the child was directed in a loud voice to let them fall. The legs kept only partly in the position in which they had been placed, and soon fell. Considerable force was required to flex the extended arm. The child had sufficient control to grasp and hold a penny when presented. When placed in a sitting position, the head invariably fell forward. When the arm was lifted vertically upward, it began to fall after four minutes. The extremities were cold, and required the application of hot bottles. The child was indifferent to those about her, and not easily interested. When her attention was aroused, the twitching of the eyes stopped for a short time.

27th.—She is stronger, sits up, and holds her head erect when fed. The twitching of the eyelids persists; the arms and fingers, when placed in an unnatural position, remain so, and force is required for their reduction. There is no evidence of pain. The legs do not retain their position, but fall immediately. She can stand, and can walk a few steps. Tactile sensibility and sense of pain and of temperature are entirely lost. Tickling the soles of the feet causes slight reflex movements; appetite ravenous. Eyes open and staring.

28th.—More conscious, answers all questions. Anæsthesia and analgesia continue.

29th.—Twitching of the eyelids diminished. Hands cataleptic.

30th.—No change. Irritation of the Schneiderian membrane causes sneezing.

October 1st.—Brighter. Twitching of the eyes has disappeared. Arm falls after a minute. Anæsthesia and analgesia remain. Considerable force is still required to flex the arm when extended.

2d.—Very bright, and shows reflex movements.

3d.—Unable to hold the arm up without dropping it.

4th.—More stupid.

6th.—Still anæsthetic and analgetic.

8th.—No reflex movements on irritating the eye or the Schneiderian membrane.

9th.—Arm remains in a cataleptic state 45 seconds.

The patient gradually improved, and was discharged November 15, 1879, entirely well.

Sarcoma of Dura Mater; Operation.—A specimen of skull and brain was presented, with the following history: A boy, aged three years and nine months, entered the hospital March 3, 1879. When nine months old, the head increased in size, due, as was then supposed, to hydrocephalus. Under treatment, the head decreased, but it was noticed that the feet gradually lost their power. He did not walk till he was two years and six months old. He presented many of the characteristics of an idiotic child. Six months ago a tumor, of the size of a pea, appeared on the side of the head. It grew rapidly, and was accompanied by severe pain.

March 11th.—Operation for removal attempted. An incision was made through a dense investing membrane, and the tumor was separated from a few attachments. There was then perceived an opening in the skull, measuring three lines by six lines ; and, beneath, a pulsating mass, which on dissection proved to be a prolongation of the original tumor. From the tumor four ounces of a brownish fluid exuded on manipulation. The operation was then stopped, the wound brought together with hare-lip pins, and dressed antiseptically. Following the operation there was partial paralysis of the right side of the face, with ptosis on the same side.

12th.—The dressings were changed, the pins were withdrawn, and the wound was syringed with dilute solution of carbolic acid. The lips of the wound were brought together with simple dressings.

13th.—Considerable discharge from the wound.

14th.—Syringed out with 50 per cent. solution of carbolic acid. A mass of tumor protruded from the wound.

15th.—Wound dressed under chloroform.

16th.—Discharge very profuse. The dura mater was found to form the floor of the tumor.

17th.—Portions of the tumor and skull removed.

18th.—Died.

Lipoma of Back.—A girl, three years old, was admitted with a lipoma of the back, extending from the eighth dorsal vertebra to the fourth lumbar. The tumor was bilateral, and resembled to a certain extent a spina bifida. It was removed June 3, 1879, and the wound dressed antiseptically. Death took place from exhaustion one month afterward (July 2d). Dr. Jacobi said the case recalled one somewhat similar that was presented at the college clinic, and diagnosticated by him as a spina bifida. The regular attendant operated a few days subsequently and found a lipoma, beneath which was a spina bifida. During the operation the sac was opened, and the cerebro-spinal fluid escaped. Death resulted.

Typhoid Fever.—A number of cases were observed. Dr. Jacobi said that many cases of typhoid fever in young children passed their course without being recognized. If the parents were careless, they did not present the little patients to a physician ; and, if the physician saw them, he would be liable to look upon them as suffering from gastro-intestinal trouble, or some undefined febrile condition. In cases of typhoid fever, diarrhœa was not a reliable symptom, and in proof of his remark he presented a portion of intestine showing perforation, which was taken from a patient with typhoid that died in his service at Bellevue Hospital. There was no diarrhœa.

Stated Meeting, December 4, 1879.

Dr. Fordyce Barker, President.

Treatment of Diseases of the Tonsils.—Dr. George M. Lefferts read a paper including this subject. In the discussion, Dr. J. H. Douglas said that one reason for the chronic condition of enlarged tonsils was, in his opinion, a partial constriction of the tonsils by the anterior and posterior pillars of the fauces. The constriction resulted from a catarrhal inflammation of the tissues. A point in treatment was, to reach the posterior arch; and to effect this he found that the nozzle of a syringe could be carried far enough back to wash out any concretions of mucus and apply appropriate remedies. That congestion could increase the size of the tonsil to three or four times its natural size he had proved by making post-mortem injections with lard. He had seen many tonsils, both large and small, removed, but he was not so favorably impressed with the operation as he had been. In enlarged tonsils he introduced the nozzle of a syringe into the crypts and washed them out. He had found that by this method of treatment, together with attention to the posterior arch, the tonsils soon became reduced in size. In regard to the hæmorrhage after the operation, he had seen a number of cases in the practice of his brother-in-law, the late Dr. Horace Green, and had found that clots forming in the veins were the cause in many cases. After these clots were washed out the bleeding ceased.

Dr. Beverley Robinson was accustomed to apply to the crypts of the enlarged tonsil a probe coated with nitrate of silver. Many patients had a prejudice against the removal of the tonsils.

Dr. Roosa was sorry that the name "throat-deafness" had come into use. It was unscientific, and should be replaced by the term catarrhal deafness. He did not believe that the tonsil pressed on the Eustachian tube, for in quinsy there was not, as a rule, deafness during the attack. He believed that the deafness was due to coincident catarrh of the Eustachian tube.

Dr. R. P. Lincoln had known pain in the ear to accompany inflammation of the tonsils, and he was induced to believe that it was due to a nervous cause, inasmuch as branches of the glosso-pharyngeal and the otic ganglion were supplied to the ear. He had recently removed a mass from the tonsil of a patient who suffered from pain in the ear without disease of the ear. Relief followed the removal. He was in the habit of applying to the crypts of the hypertrophied tonsil a solution consisting of one part of carbolic acid and eight parts of the compound tincture of iodine. Cases usually improved after three or four applications. A Cuban lady came under his observation, suffering, as was supposed, from malignant disease of the tonsil. A mass, of the size of a walnut, was removed, and there followed complete relief. The pain was very severe, and over the parietal region of the affected side the hair was blanched over a space as large as a silver dollar.

Dr. Frank H. Bosworth thought that some cases of acute tonsillitis might be aborted by giving ten grains of quinine and subsequently ten drops of Fleming's tincture of aconite every hour until the physiological effects were complained of. He was of the opinion that nightmare in children was often the result of tonsillitis.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, October 22, 1879.

Dr. E. L. Keyes, President.

Microscopical Study of Yellow Fever.—Dr. E. C. Seguin presented microscopical specimens obtained from yellow fever patients by Dr. H. D. Schmidt, pathologist of Charity Hospital, New Orleans. Dr. Schmidt's article on the pathology of yellow fever appeared in the "Journal," February, 1879, and in it he described fully the specimens presented by Dr. Seguin.

Gangrene of Lung; Empyema.—Dr. F. Lange presented a specimen of a necrosed portion of lung. The patient was a man forty years of age, who was seized with pneumonia on September 13th. Gangrene of the lung supervened, which had had as a result empyema. A quart of pus was expectorated. An incision was subsequently made in the chest wall, and th specimen presented came out with the escaping pus.

Tumor of Scrotum.—Dr. F. D. Lente presented a scrotal tumor which he had removed from a man aged twenty. The patient was a farmer's son, and had been in good health, with no history of syphilis. The growth first appeared in the fall of 1878, and was of slow growth. When seen in July, 1879, it was as large as when presented to the society, measuring seven inches in circumference. It was aspirated, and two teaspoonfuls of dark grumous fluid withdrawn. It was solid and elastic, but presented no nodules. The upper part of the tumor was soft and elastic, closely resembling in that respect medullary cancer. It was found subsequently that the soft and yielding sensation was due to an abscess. The patient began to sink rapidly, and for that reason the mass was removed. An abscess was found as stated, and another at the bottom of the scrotum. In it were found small portions of a hard cartilaginous substance. The patient improved after the operation. There was no history of injury. Dr. Keyes said that he had had a somewhat similar case, in which the retroperitoneal glands were affected. The disease recurred and death ensued. Dr. Briddon thought the case was one of cysto-sarcoma.

Excision of Elbow.—Dr. L. A. Stimson presented a specimen of the elbow-joint which he had removed from a boy eighteen years of age. The boy had scarlatina in his eighth year, and subsequently arthritis of the elbow and knee. The arm was atrophied. The coronoid process was an inch longer than normal. The result showed good flexion and extension, with considerable lateral motion. Dr. Stimson had operated also on a negro who had anchylosis of the elbow from synovitis. An abscess was found in the head of the radius. The capsule of the joint was much thickened. It was desirable to avoid any lateral motion, as his occupation was that of a laborer. Flexion of 30° was obtained. Dr. Stimson reported also a result in the case of a lady operated on over a year ago, and presented to the Society. The patient said she had perfect use of the arm.

Stated Meeting, November 12, 1879.

Dr. E. L. Keyes, President.

Fibroma of Uterus complicated by Pregnancy; Death from Septicæmia.—Dr. Heineman presented in behalf of a candidate a myoma of the uterus, with a written history. The case was presented by Dr. Lusk to the New York Obstetrical Society, October 7, and reported in full in the "Journal" for November.

Sarcoma of the Maxilla; Death.—Dr. Erskine Mason presented a specimen of sarcoma of the maxilla of considerable interest. A woman, aged twenty-four, entered Roosevelt Hospital in February, 1878, with a sarcomatous tumor of the upper jaw. She had an abscess in the neighborhood of the left jaw two years before, which healed readily, but near the cicatrix a nodule appeared and increased in size till she entered the hospital. On examination, the left maxilla was found to be involved. The eye-ball protruded, but the most distressing symptom was the severe pain. The whole of the maxilla was removed March 13, 1878. It was examined by Dr. Francis Delafield, who pronounced it to be a spindle-celled sarcoma. After the operation, the pain was relieved, the sight improved, and her condition on leaving the hospital, in August, 1878, was satisfactory. She returned in March, 1879, with a recurrence of the growth, which projected downward into the mouth. Epistaxis was an important feature in the case. Dr. Weir was then on duty, and on March 13, 1879, removed as much of the tumor as possible. The patient rapidly recovered, but in a short time the sarcoma reappeared. With its reappearance, hæmorrhages became frequent. She died from exhaustion July 16, 1879. At no time were there any cerebral symptoms other than such as might fairly be attributed to the loss of blood.

Autopsy.—A white elastic tumor was found on the left side, which extended into the orbit and caused protrusion of the eye. It filled the nares and pharynx, having destroyed a portion of the sphenoid bone, and entered the middle fossa of the skull, detaching and pushing up the superjacent dura mater. The pia mater was congested, but no change could be made out in the dura mater. The optic nerve was surrounded with the growth. Dr. Mason said he had had a somewhat similar case in Roosevelt Hospital. The tumor returned six months after operation. Death took place from hæmorrhage.

Carcinoma of the Rectum ; Lumbar Colotomy.—Dr. Joseph W. Howe presented a specimen with the following history : A Bohemian woman, aged fifty-eight, entered St. Francis's Hospital, February 19, 1879. For eleven months she had suffered pain on defecation, which gradually increased. There was also obstruction, with bloody fæces. She was confined to bed several weeks before admission to the hospital, and had been one week without evacuating her bowels. She exhibited well-marked cancerous cachexia, and suffered intense pain. The abdomen was tympanitic, and pressure on it caused pain. The rectum was completely closed by nodular masses of new growth, which were soft and bled freely when touched. The margin of the anus was red and indurated. There was a scanty but continuous discharge of pus and blood from the rectum. An attempt was made to unload the bowels by passing a gum-elastic catheter above the cancerous mass, and injecting water and oil ; no benefit followed.

On the third day after admission lumbar colotomy was performed by Dr. Howe in the usual manner. There was considerable discharge of gas, with a small quantity of hardened fæces. On the morning following the operation, the pulse was 146 ; the temperature, 102°. She had six passages through the artificial anus during the day. Three days after the operation she had only slight pain. Temperature, 101° ; pulse, 102. One week after the operation the sutures were removed. The upper part of the wound had healed by first intention ;

the lower part was suppurating freely and had not united. Subsequently it united and healed. The general health improved, and her condition was quite comfortable during her stay in the hospital. She subsequently entered the Long Island College Hospital, and died from exhaustion seven months after the operation. There was slight prolapse of the intestines through the artificial anus. The specimen presented showed the cancerous rectum and the artificial anus.

Dr. Erskine Mason said he had been called out of the city to perform lumbar colotomy. The operation was readily performed. A profuse discharge of the contents of the intestines took place through the artificial anus, accompanied with collapse. Death took place seven hours after the operation.

Removal of Calculus by Dilatation of the Female Urethra.—Dr. Howe presented a stone which he had removed from a woman, aged sixty, admitted to St. Francis's Hospital, September 20, 1879. Two years and a half ago she had an attack of renal colic, and shortly afterward complained of pain in micturition. For the past two years she had had to use a catheter. On examination a calculus was found. She was etherized on September 26th, and by means of Molesworth's dilators the urethra was enlarged sufficiently to admit the forefinger. Two calculi were discovered; the larger was covered by a false membrane. They were removed. Pain continued after the operation, notwithstanding that the urine dribbled from the meatus. After the dribbling ceased, she required the use of the catheter as before. She said that without its aid she was unable to empty her bladder. The incontinence lasted only twenty-four hours after the dilatation.

Facial Erysipelas.—Dr. Amidon presented microscopical specimens of the erysipelatous skin of a patient who had facial erysipelas, and died with a complication of croupous pneumonia.

Acute Myelitis.—Dr. E. C. Seguin presented a microscopical specimen taken from the spinal cord immediately below the site of an acute myelitis. It exhibited the vacuole formation. Dr. Seguin said the significance of vacuoles or dropsy cells was unknown.

Croup.—Dr. J. Lewis Smith presented the larynx and trachea of a child who died from membranous croup. Some discussion took place on the question of the identity or duality of croup and diphtheria.

Empyema.—Dr. Smith also presented the lung of a child who had empyema. The diagnosis was made out on the fifth day. The chest was aspirated and some of the pus removed. The needle of the aspirator entered the lung after a portion of the fluid was withdrawn. Dr. Smith presented a trocar, of something of the old style, in order to obviate the danger in future. The lung presented exhibited the wound of the aspirator needle.

Ovarian Cyst, and Cyst of Broad Ligament.—Dr. C. C. Lee presented a cyst of the ovary, and another of the broad ligament. The former had been removed by himself, and the latter by Dr. T. A. Emmet. Both were from patients in the Woman's Hospital. The ovarian cyst contained the ovarian corpuscle, and had a strong fibrous sac. The cyst of the broad ligament contained serum only, and had a more delicate sac.

Amyloid Degeneration of Placenta.—Dr. C. Heitzmann made an extended report on amyloid disease of the placenta. Ten placentæ were examined. The majority of them had the appearance of fatty degeneration. In eight cases the fœtus was born dead or died shortly after delivery. The amyloid change was located in the basis substance of the decidual portion and villosities. In three cases there was a trifling amount of fatty degeneration of the decidual elements. The nutrition of the fœtus was impaired by compression of the capillaries in the villosities, which became impermeable to blood corpuscles. The reagents used were: iodine, fuchsin, methyl-anilin, carmine, oil of cloves, and turpentine. The result of the studies which were made by Dr. Jeannete B. Green indicated that amyloid degeneration attacked the basis substance, killing the living matter only in the highest degrees of the disease, while fatty degeneration took place in the living reticulum of the protoplasm, mainly the decidual elements. In one case there was amyloid disease of the amnion, and in two cases, amyloid disease of the umbilical cord.

Aneurism of the Aorta.—Dr. John H. Ripley presented the heart and lungs of a man, aged thirty-four, who died from aneurism of the aorta. He contracted syphilis five years ago, but gave no evidences of thoracic trouble till within the past seven months, when after exposure he suffered from cough with dyspnœa on exertion. He entered St. Francis's Hospital February 10, 1869, and remained six weeks. He returned in September, and stated that he had been engaged as a waiter, but had suffered during the whole of the time from hoarseness, with periodic attacks of cough, dyspnœa, and pain in the left shoulder, side, and interscapular region. A physical examination was made in October. No abnormal impulse could be felt at any point over the chest walls. The apex beat was weak, but normal in position. The left radial pulse was feebler than the right, while pulsation in the left carotid was stronger than in the right. Percussion showed vesiculo-tympanitic resonance under the left clavicle, dullness under the right clavicle, and more decided dullness toward the sternum. Expansion was deficient under both clavicles—most marked under the right one; and there was epigastric and intercostal depression during inspiration. There was dullness in both interscapular regions, more pronounced on the left. The percussion was tympanitic below. Respiration in the right interscapular region was broncho-vesicular; in the left, purely bronchial. A diagnosis of thoracic tumor, probably aneurismal, was made. Dr. Elsberg reported complete paralysis of the left vocal cord, with congestion of the laryngeal mucous membrane. After hearing the history, he favored a diagnosis of aneurism. Subsequently a *bruit* was heard at the junction of the fourth rib with the sternum, and a positive diagnosis was made of aneurism of the transverse portion of the arch of the aorta, pressing on the left bronchus and on the trachea. Death occurred from exhaustion after a night of severe dyspnœa, October 22, 1879. Pain was not an urgent symptom.

The autopsy was made by Drs. Schnetter and Cauldwell. A large saccular aneurism springing from the transverse portion of the arch of the aorta was found. It pressed on the left pneumogastric nerve, immediately above the origin of the recurrent nerve, and was adherent to the third dorsal vertebra, which formed a portion of the posterior wall. That vertebra was partly absorbed. Lungs: Left lower lobe congested and œdematous; upper lobe emphysematous. Pleuritic adhesions over both lungs. The lungs did not collapse on removal. The heart was not hypertrophied.

Lithotrity.—Dr. E. L. Keyes presented a modification of the washing bottle for rapid lithotrity, which had been sent to him by Sir Henry Thompson. It did not differ essentially from Bigelow's instrument. He presented fragments of five calculi which had been successfully removed from the bladder, also specimens from two patients who had died after the operation. The first case was that of a man aged sixty-nine. It required thirteen minutes to catch the stone in the jaws of the lithotrite. It was then only crushed. In three weeks the fragments were again crushed and removed. Death took place on the fifth day. There was total suppression of urine. The second patient was fifty-three years of age. Death took place on the eighth day. There was also complete suppression. The average age in the successful cases was over sixty.

In the two cases the difficulty of seizing the stone was due to the presence of a pouch on the posterior surface of the bladder. It was necessary to inject the bladder, and then turn the patients on their face and side in order to allow the calculus to roll out of the sac.

Dr. C. C. Lee asked if it would not be practicable to dislodge the stone from the sac by means of the finger in the rectum.

Dr. Keyes said that that procedure had been tried more than once with bad results. In one case the hand was introduced into the rectum, and the stone placed in the jaw of the lithotrite. The patient died the following day.

Stated Meeting, November 26, 1879.

Dr. E. L. Keyes, President.

Report of the Microscopical Committee.—The testicle shown by Dr. F. D. Lente was found to present a cystic chondrosarcoma. Dr. VAN GIESON's specimen of lung was sarcomatous, with spiculæ of bone.

Removal of Parotid Tumor; Death.—Dr. A. C. POST presented a portion of a tumor of the parotid which he had removed from a man sixty-one years of age. The tumor appeared four months before the operation; it increased in size, and became painful. Pain was an important symptom two months before the operation, and for the relief of the extreme pain the operation was performed. The mass was adherent to and situated beneath the sterno-cleido-mastoid muscle. It extended upward between the mastoid process and the lower jaw. In the dissection, several lateral branches of the cervical plexus were cut. A nerve was found to issue from what seemed to be the mastoid foramen. It was cut, but the after-history of the case proved that it was not the facial. The dissection exposed the pneumogastric nerve, the carotid artery, and the internal jugular vein. As it was impossible to remove the whole of the tumor, the wound was closed and treated antiseptically. Primary union occurred, but after two or three days suppuration of a gangrenous form took place, which extended down to the thorax. An abscess formed in front, behind the clavicle. Death took place in eight days, from exhaustion. The pain was relieved only in part by the operation. Paralysis of the face, which should have occurred if the facial nerve had been cut, was not noticed.

Necrosis of Tibia.—Dr. POST presented also clippings of bone which he had removed from a man twenty-four years of age. There was a history of necrosis of the head of the tibia, lasting for eight years. At the time of examination a large ulcer was found near the knee, which led into the necrosed tibia. There was false anchylosis of the knee-joint, with the limb flexed at an angle of 140°. The articular surface of the tibia was expanded. The opening in the bone necessary for removing the necrosed portion measured four and three quarters by three and a half inches, and extended close to the wall of the joint.

Rudimentary Kidney.—Dr. L. A. STIMSON presented a specimen from the Bellevue Hospital dead-house in which there was a rudimentary condition of the left kidney. The corresponding ureter extended up from the bladder for six inches, and then terminated in a slender, fibrous cord which reached to the kidney. There was no left renal artery, but there was a left renal vein. The mass which took the place of the kidney contained calcareous matter, but no kidney-tissue proper. The right kidney weighed six and a half ounces. The bladder showed a sacculation as large as the phalanx of the thumb. The vagina was closed by a diaphragm, but was capacious above and below.

Microscopical Appearance of Skin around Old Ulcers.—Dr. Amidon presented microscopical sections of skin removed from the vicinity of an hæmorrhagic ulcer, the result of a gunshot wound of the leg, dating back to 1863. The ulcer was as large as the palm of the hand, and was cured by the elastic bandage. The sections of skin were suggested by the opinion that the tissues around the edge of chronic ulcers developed the elements of epithelial cancer.

Stated Meeting, December 10, 1879.

Dr. E. L. Keyes, President.

Mitral Stenosis.—Dr. J. W. Howe presented, on behalf of a candidate, a specimen of stenosis of the mitral orifice with calcareous degeneration. The diagnosis had been made out two years before death.

Intra-Capsular Fracture of Femur.—Dr. Howe presented also a specimen of intra-capsular fracture of the femur, taken from a man who died from delirium tremens one month after the injury. The specimen showed partial attachment of the head to the shaft by means of a small band of periosteum. Dr. F. Lange said that he had seen the case soon after the injury. The man was able to move about, and there was no crepitus. Dr. Howe said that Dr. Lange was correct, but that afterward there were crepitus and shortening. Dr. Post did not think that the fracture was entirely within the capsule. The reason of the absence of shortening after the injury in intra-capsular fracture was, that the fragments were held together by means of the cervical ligament, a band of thickened periosteum. Motion tore the periosteum, and shortening followed. He did not think it was wise to make a thorough examination in a suspected case, for fear of breaking the band of union.

Cancerous Lymphatic Gland.—Dr. Post presented a lymphatic gland from the axilla of a woman who had had a breast extirpated for cancer fifteen months previously. The dissection was tedious, and resulted in the exposure of the axillary vessels. A microscopical examination showed the specimen to be a lymphatic gland that had become cancerous. There was no return of the disease elsewhere.

Lupus.—Dr. Post reported in regard to a case of lupus presented at a previous meeting of the Society. The granulations were progressing favorably. He proposed to form the nose by means of one of the fingers, and showed a nail which he had removed from the finger as a preparatory part of the operation. It was his intention to complete the nose by a series of operations.

Tumor of Upper Jaw.—Dr. Post presented a tumor of the upper jaw which he had removed. It was of rapid growth, and extended from the alveolar process into the antrum. There was no expansion of the walls of the antrum. The ordinary operation was performed. The cheek was dissected up, and the incision made through the mucous membrane of the roof of the mouth in the median line.

Tumor of the Pons Varolii (*Glioma Mucosum*).—Dr. E. G. Janeway presented a tumor of the pons, removed from the body of a girl, six years of age. The family history indicated caries of the vertebræ and a tendency to nervous disease. The child became affected with strabismus of the left eye two years ago, but beyond this there was nothing to indicate cerebral disease until last April, when she complained of severe attacks of headache, with vomiting and weakness. The paroxysms of headache lasted about three minutes. When she came under Dr. Janeway's observation there was internal strabismus, with paresis of the left side of the face. The left hand was weaker than the right, but not markedly so. The difference was most noticeable while playing the piano. The left foot turned under in walking. The case was under the care of Dr. E. A. Maxwell, who made a diagnosis of cerebral tumor pressing upon the sixth nerve. The child failed and sank into a listless state, death taking place from exhaustion.

Autopsy.—An extensive tumor of the pons Varolii was discovered, which infiltrated it and reached to its anterior border. The sixth nerve passed through it and was atrophied. The fifth nerve on the left side was flattened out, but its integrity was not impaired. The anterior pyramid of the medulla oblongata was compressed. The glosso-pharyngeal and pneumogastric nerves passed between the irregularities of the mass, and were not injured. The history of the case showed no marked incoördination of the extremities and no rotary movements indicative of disease of the cerebellum.

Pleurisy; Cardiac Thrombosis.—Dr. Janeway presented also a specimen of thrombus of the left ventricle, with the following history. A man entered Bellevue Hospital, suffering from pleurisy with effusion. An examination of the urine gave negative results. An examination of the left chest showed voice-sounds at the base of the lung and whispering pectoriloquy near the angle of the scapula. On introducing the hypodermic needle, clear serum was withdrawn. After a few days the fluid extended above the angle of the scapula. The patient suffered from severe attacks of dyspnœa, which came on suddenly and, although threatening to prove fatal at the time, passed away. During one of them, however, the patient died. The autopsy showed fluid in both pleural cavities, most abundant on the left side. The left lung was attached to the diaphragm by adhesions, permitting the fluid to extend upward on either side of it. The left ventricle of the heart contained a large thrombus of relatively old formation, as evidenced by a spot of softening in the center, with concentric laminæ of fibrine. There was fatty degeneration of the heart. The kidneys showed chronic nephritis.

Dr. Loomis said there were always two sides to the question of thrombus of the heart. It might be either the cause or the result of the process of dying. Dr. Janeway said that the fatty degeneration might have had an effect; still he thought, from the attacks of dyspnœa and from the relative age of the thrombus, that there could be but little doubt that death was caused by the thrombus. It was larger than he had ever seen before, and the specimen presented showed only a part of it. In regard to the presence of whispering pectoriloquy and other sounds indicative of a cavity over a pleuritic effusion, he was at a loss to account for them satisfactorily, but was at the same time so confident of the diagnosis of pleurisy that he introduced a needle. Dr. Loomis suggested that the presence of respiratory sounds in some cases might be explained by the fact that the lung was bound down below the situation of the fluid, and that, although the fluid compressed the lung, it did not compress the bronchial tubes.

Appearances of the Tissues after the use of Hypodermic Injections.—Dr. Amidon presented several specimens showing the condition of tissues in the immediate vicinity of hypodermic injections. The injections consisted of Prussian blue, and were given shortly before death in moribund patients. A question was raised by Dr. Amidon as to whether absorption took place from the lymphatics or from the blood-vessels. He had endeavored to test it by giving injections of pilocarpine in the ankle and in the region of the neck near the thoracic duct. There was no appreciable difference in the time required for the exhibition of specific symptoms in the two cases. The injections were found, in the specimen presented, to surround the vessels.

Abortion; Septicæmia; Death.—Dr. A. L. Loomis presented the heart, uterus, and kidneys of a woman, aged twenty-one, who died in his service at Bellevue Hospital. Two weeks before admission, while in an early stage of pregnancy, she complained of symptoms of abortion, and after two days' illness the ovum was removed by means of a forceps, a sponge tent having been used to dilate the cervix. She did well until the third day, when a severe chill occurred, accompanied by high fever. For the ten subsequent days her condition became worse, and on December 2d, she entered the hospital. The temperature then was 105°; pulse 120. She was delirious and lethargic. The appearance of the woman resembled that of an acute maniac. On the following morning the temperature was 101°, but before noon it was 105°. The administration of antipyretic agents and the use of cold failed to reduce the temperature. Death occurred in seventy hours. There were no evidences of pulmonary disease.

Autopsy.—The uterus was enlarged, and within the os a clot was found. Beneath this there seemed to be a slough. There was no pus in the sinuses. Infarctions of the septicæmic variety were found in the kidneys, liver, and spleen.

Dr. JANEWAY said he had made the autopsy. Colonies of bacteria were found in the capillaries near the infarctions, along the course of the veins, and in the Malpighian bodies. In the discussion which followed in regard to bacteria, Dr. Janeway referred to experiments reported, in which fluid obtained from malignant pustules, and containing bacteria, was injected into an Algerine goat and into another of the same family, but of the domestic variety. The domestic goat died, and the body contained multitudes of bacteria, whereas the Algerine goat was not injured by the experiment.

Atrophied Kidney.—Dr. L. A. STIMSON presented the kidneys and bladder which he had obtained from a body at the Bellevue Hospital dead-house. The patient entered the hospital two months before death. No history was obtained in regard to the last month of his life. On admission the urine contained albumen and casts. There was pain in the head, with diarrhœa, and subsequently he became insane.

Autopsy.—The brain contained an old clot. The bladder was full of urine, and beneath it there was a fibrous mass which extended into the sacrum. In this mass there were a number of small abscesses. The origin of the growth seemed to be in the seminal vesicles. The left kidney weighed eight ounces; the right one was atrophied to a mere sac. The liver contained small depots of pus. Pus was found in the hepatic veins also.

THE NEW YORK OBSTETRICAL SOCIETY.

Stated Meeting, November 18, 1879.

Dr. William T. Lusk, President, in the chair.

THE RELATION OF DISEASES OF OVARIAN BLOOD-VESSELS TO OVARIAN CYSTS.

Dr. Noeggerath made a preliminary report of his investigations concerning certain diseases of the blood-vessels of the ovary in their relation to the genesis of ovarian cysts.

After a rapid sketch of the present views concerning the origin of cysts, and especially of the cystoma proliferum glandulare, he passed to the consideration of the minute anatomy of the organ in question. He called attention to the fact of how rarely could a typically normal ovary be found, the difference between the individuals resulting partly from the varying amount of spindle-tissue, partly from variations in the number and distribution of the blood-vessels.

The first alteration of blood-vessels considered was the hyaline degeneration, which, if extending upon a group of capillary arteries and veins, resulted in a figure resembling so much a corpus albicans that it was extremely difficult to tell the one from the other. In this instance the connective-tissue elements as well as the cells were found matted together into one homogeneous, vitreous body. It was not a waxy degeneration, but rather a transformation into elastin. A second affection, which apparently was restricted to the smaller arteries, gave rise to a body which resembled a corpus luteum of the third or fourth month of gestation. In this instance the muscle-cells of the media were found proliferated in number and size, the intercellular elastic and connective tissue forming a lacework looking somewhat like the adenoid-tissue network of the corpus luteum. But in the former instance the fibers gradually were changed into the hyaline modification, and disappeared at last before the development of the cells, which in their turn became softened and disintegrated, forming at last the contents of a small cavity.

A third disease was a typical endarteritis destruens. He exhibited a cut through an ovary, of not much larger than the normal size, in which a vessel was found among the follicles of the size of the carotid, where a large portion of the intima was in a process of destruction by an enormous number of enlarged migrating cells filling up the interstices of the stroma.

In a fourth variety the disease began in the media by a numeric hypertrophy of its cellular elements, without any affection of the intercellular connective tissue. This kind was most frequently seen as affecting the large arterial sinuses, as found in the vascular stratum. The cells were so altered in size and character as to resemble the epithelioid cell. The intima was apparently atrophied and lost, and at last a true cylindrical epithelium was developed upon this altered muscular coat. He exhibited a number of drawings illustrating this point.

The fourth alteration was a direct transformation of capillaries into epithelial tubes. He exhibited drawings of such tubes, comparing them with Waldeyer's figures accompanying his article on the *epithelialen Eierstocksgeschwülste* in the second volume of the "Archiv für Gynäkologie," and with microscopical sections of capillaries, pointing to the similarity of these structures. Besides, he had succeeded, by careful staining with eosin, in demonstrating the presence of blood-corpuscles inside of those epithelial tubes. He therefore no longer considered them as Pflüger's tubes, of a lower type or of a less specialized development.

On motion, discussion upon the subject was postponed until after the publication of the paper.

A Successful Case of Laparo-Elytrotomy.—Dr. Walter R. Gillette reported a case of laparo-elytrotomy. He was called, November 19th, to the New York Lying-in Asylum, to see a woman, aged twenty-five years, married, in labor with her first child. The house physician, Dr. Coleman, thought that the superior strait was narrowed to two inches. The patient was four feet four inches in stature, and was rachitic, and, when in the supine posture, presented an appearance suggesting that of a turtle. She had had more or less pain for a week, and the waters had been discharged several hours previously. The uterine tumor was freely movable above the superior strait. There were no fœtal sounds; there was evidence that the fœtus was decomposing. The inferior strait was capacious; the hand could be easily introduced into the pelvic cavity, and led directly to the superior strait, which was reduced to an inch and a half in diameter. Through the superior strait the lips of the os uteri were felt pouting, and the os was dilated to about the size of a silver dollar; the caput succedaneum was felt, and the cephalic pole recognized. He summoned to his assistance Dr. Nicoll, his colleague, and Dr. McLeod, consultant. The necessity for prompt assistance to the patient was recognized, and it was decided to resort to the operation of laparo-elytrotomy. Accordingly, at 3:15 A. M., with a poor light, he began the operation by making the usual incision from the anterior superior spinous process of the ilium to the symphysis pubis. Two vessels were ligated, one was twisted, and the hæmorrhage was not serious. When the os was reached, it was so rigid and hard that its dilatation could not be effected as rapidly as desirable; it was, therefore, incised slightly by means of a pair of curved scissors. The os being opened sufficiently, an effort was made to deliver the child with the forceps, but, owing to the position of the fœtus, he was utterly unable to apply the right blade of the instrument. He then determined to turn the child, and deliver by the feet. The right knee was readily grasped, and the right leg was delivered, but then version was arrested, because the position was such as to render rotation impossible. Craniotomy was then performed, and the brain evacuated, but that was of no assistance. The contraction of the uterus was so powerful that the dead body of the fœtus was completely doubled. Another effort was made to get the left foot, but, failing in that, the cephalotribe and the cranioclast were employed, and delivery completed. The placenta followed immediately. There was no option regarding the delivery of the placenta, and no hæmorrhage occurred. The bladder was not opened in the operation. The wound was closed by stitches, dressed with adhesive plaster, covered with a cotton pad, and the patient was put back to bed with bottles of hot water to her feet, and Magendie's solution was ordered.

November 9th.—Suffered no pain. Temperature 101° F.

Pulse rapid. Quinine, grs. x. Bladder emptied at intervals by means of a catheter.

10th.—Colicky pains in the abdomen. No elevation of temperature. Tympanites, but no pain. Wound looked well; not much discharge. At 3 P. M. a rectal tube was introduced. A quantity of gas escaped, and the patient was much relieved. Morphine was given, and at 8 P. M. the patient was in profound narcotism, with the respiration at 7 to the minute. At the end of two hours the respiration had risen to 12. It was subsequently found that morphine was unnecessary, and that treatment of the flatulent condition was all that was necessary.

12th.—Progressing favorably. Temperature 100° F. Wound healthy. Bowels moved by enema.

13th.—Temperature 102° F. in the morning, and 100° F. in the evening. At midnight the patient had a chill.

15th.—Wound looked sloughy. Removed the sutures, opened the wound, and gave vent to fetid liquid. Toward evening the bowels moved naturally. General condition good. Quinine, whisky, and milk were given freely. From that date the patient went on steadily to recovery.

The case was specially interesting from the fact that almost every obstetric operation was resorted to, except Cæsarean section, before the dead fœtus was delivered—1. Forceps; 2. Version; 3. The cephalotribe and cranioclast. It also showed that the operation of laparo-elytrotomy could be performed successfully under very unfavorable circumstances.

Dr. T. G. THOMAS remarked that he had been exceedingly interested in the case reported by Dr. Gillette, and fully agreed with the Doctor that the operation might be successful under adverse conditions. The unfavorable circumstances were the fact that the operation was performed in a lying-in asylum, that the fœtus was putrid, and that a number of efforts were necessary before delivery could be effected.

He favored treating the opening as an open rather than as a closed wound. He had met with but a single case, since his last, in which he could perform the operation, but then the attending physician objected, opened the head of the child, and the mother died a few days afterward.

Dr. A. J. C. SKENE remarked that the case demonstrated one point upon which he had always insisted, and that was that the operation could be performed without opening into the bladder. He doubted if, in the case reported, the life of the mother could have been saved by any other operation than that adopted.

Dr. Gillette suggested that the rules for making the first incision would have to be modified, as he had given himself unnecessary difficulty by cutting too low down.

Dr. Mundé asked if laparo-elytrotomy was allowable for the sake of saving the life of the child, also that of the mother, in a case where craniotomy would probably be indicated, and would be an equally difficult operation.

Dr. Thomas replied that, if the craniotomy was to be simple, the operation of laparo-elytrotomy would not be justifiable; but, if it was specially dangerous for the mother, certainly fatal to the child, he should decide in favor of laparo-elytrotomy.

Stated Meeting, December 2, 1879.

Dr. William T. Lusk, President, in the chair.

Dr. M. D. Mann, the Pathologist of the Society, reported that the tumor presented by Dr. Barker, at the meeting on November 4th, was a cystic fibro-myoma, which probably had its origin in the uterus.

Uterine Fibro-Myomata complicating Pregnancy.—Dr. P. F. Mundé presented a uterus containing a large intramural fibroid, also a subperitoneal fibroid, four and a half inches in length by three and three quarter inches in width, and connected to the fundus by a pedicle an inch and a half in length and one inch in thickness. The woman was a primipara, æt. thirty-seven years. He was called November 15th, and the case was supposed to be one of twins. He diagnosticated subperitoneal uterine tumor with pregnancy. Delivery was facilitated by the use of the forceps, the contractions of the uterus not being sufficiently powerful to expel the child over the tumor. The child weighed seven pounds and two ounces. Examination of the uterus after delivery revealed a large intramural fibroid upon the right side, and its capsule seemed to have been ruptured. The secundines were delivered entire. The labor was twenty-eight and a half hours in duration, a large proportion of the time being occupied by the second stage. There was albumen in the urine after, but not before, labor. The right ureter was very much dilated, and there were also ureteritis and pyelitis. The patient died on the eighth day. The uterus and tumor weighed six pounds and fourteen ounces, and measured seven and a half inches in all diameters. The placenta was attached to the posterior wall of the uterus on the left side. The exposed portion of the interstitial tumor had a greenish-yellow color. The case was interesting with reference to differential diagnosis and to the danger of post-partum hæmorrhage arising from difficulty in detaching the placenta. He asked regarding the propriety of enucleating the intramural fibroid in such cases immediately after labor. At the time of delivery he thought the woman's chances for recovery in this instance were increased by letting the tumor alone.

Dr. Fordyce Barker doubted the propriety of enucleation under such circumstances.

Dr. C. S. Ward remarked that he should not be willing to enucleate, and referred to cases in which, after delivery of the child, the uterine fibroid had undergone almost complete involution.

Dr. Charles C. Lee referred to a case in which the involution was complete, and believed it was accepted that if labor was safely passed the process of involution of the tumor was frequently complete. He referred to a case in which fatal post-partum hæmorrhage occurred because of the inability of the uterus to contract firmly over the tumors.

Dr. Barker referred to a case similar to Dr. Mundé's in post-mortem appearances, but essentially different in clinical history. He mentioned the case as one having some bearing on the question of laparo-elytrotomy. Many years ago he saw a case at the Woman's Hospital, with Dr. Sims, who had diagnosticated it to be one of pregnancy and uterine fibroids, both intramural and subperitoneal. It was in the eighth month of pregnancy, and he recommended waiting until labor began, and then the performance of the Cæsarean section. The pelvic cavity was firmly crowded with the tumor, so that it could not be lifted out. Dr. Sims concurred. Subsequently Drs. Mott, Delafield, and Francis saw the case in consultation, agreed that craniotomy was a feasible operation, and advised against Cæsarean section. Dr. BARKER was asked to perform craniotomy but declined, and Dr. Gardner was called, who undertook the operation, and finally succeeded in delivering the child in small pieces, the woman dying a few hours afterward. At the autopsy, an intramural fibroid was found that weighed thirteen and a half pounds. It was also found that three openings had been made into the peritonæum. The patient died of shock. The question now was, whether laparo-elytrotomy could have taken the place of Cæsarean section, and he doubted if it could.

Dr. LUSK referred to a similar case reported by Kleinwächter, in which Cæsarean section was performed, and the woman recovered. He further stated that, inasmuch as the obstruction was not at the brim but in the uterine cavity, he did not see how laparo-elytrotomy could be made available.

Intestinal Invaginations; Large Thymus Gland; Bronchopneumonia; Atelectasis.—Dr. B. F. DAWSON presented a small intestine which had four invaginations, a large intestine with two bladder-like dilatations with almost complete stricture of the rectum, and a stomach which had the shape of an hour-glass—all removed from the body of a child that had died of gastro-intestinal catarrh. He also presented the lungs and thymus gland, the latter an inch and three quarters in diameter, removed from an asphyxiated child six months old, and also lungs from an infant three months old, showing pneumonic consolidation and atelectasis, side by side.

Ovarian Cyst in a Child Three Years and Four Months old.—Dr. J. FOSTER JENKINS referred to an ovarian cyst occurring in a child three years and four months old, and reported to the Society by Dr. Pooley, of Yonkers, six years ago. It was mentioned to supplement remarks upon the subject at a former meeting.

Irritability of the Bladder and Dilatation of the Urethra.—Dr. H. D. NICOLL reported a case of excessive irritability of the bladder, of two years' duration, and occurring in a young lady twenty years of age. No special cause could be detected for the irresistible desire to evacuate the bladder. He dilated the urethra fully, and the trouble at once disappeared.

Delivery impeded by Cicatricial Tissue; Caution in the Use of Forceps.—Dr. Barker reported a case which, in connection with delivery, presented one feature that was in his experience unique. The woman was a primipara, who was suddenly taken with convulsions, without premonitory symptoms, about two months before her expected confinement. He saw her in consultation with Dr. D. M. Stimson. The case was one that had been abandoned by a homœopathic practitioner, and when Dr. S. first saw her she had had twenty-one convulsions, and when Dr. B. arrived she had just come out of her twenty-fifth convulsion. The convulsions were treated by administering cathartic doses of calomel and croton oil, and by the use of chloroform. Infusion of digitalis and acetate of potash were given freely. The uterus was soft and flabby, and all efforts at dilating failed to excite uterine contractions. After a long time the cervix was sufficiently dilated to warrant an attempt to deliver by the aid of the forceps. The general condition of the patient was exceedingly poor. Brandy was given freely by the mouth and hypodermically. The forceps was applied easily, the pelvis was large, the child was small; but, when only a moderate amount of traction was made, it was discovered that the uterus came down with the child. Dr. B. then made a more careful examination, and found a sharp ridge of cicatricial tissue extending across the upper and anterior half of the cervix, like a piece of whip-cord, and undilatable. The forceps was removed, was reapplied, and after a time the stricture was overcome and delivery completed, but two hours were occupied in the operation. He subsequently learned that the woman had had local treatment for disease of her womb three years previously. The important lesson to be learned from the case was the necessity for *great* caution, in the face of the temptation which any one would feel to deliver a woman rapidly who is in extreme danger, and when the indication is clear, to empty the uterus. The child could have been pulled through easily in this case, but the uterus would have been torn probably, and the life of the patient sacrificed. The patient was making a good recovery. She was blind two days and a half, and her arms and hands were completely paralyzed. He thought the cicatricial tissue was produced by leaving a piece of lunar caustic in the cavity of the cervix; but with cicatricial tissue at the os internum, complicating labor, he had not before met.

Dr. CHARLES C. LEE referred to cases in which nodular tissue in the cervix had been produced by the use of the acid nitrate of mercury.

Dr. MUNDÉ stated that he had been led to believe that nitric acid was not so dangerous as nitrate of silver.

Dr. W. M. CHAMBERLAIN said that he had used nitric acid in preference to any other caustic; and, when lightly applied, it left no tendency to the formation of cicatricial tissue, but changed favorably the action of the mucous membrane.

Dr. F. P. FOSTER suggested that the mere comparison of results from the use of nitric acid and nitrate of silver was delusive, because the former was not, as a rule, used frequently and regularly, while the latter was used very commonly. The subject of the use of caustics in the cervical canal was discussed at considerable length.

Intestinal Obstruction caused by the Pedicle of an Ovarian Cyst twisting around the Ileum.—Dr. MUNDÉ reported a case of the above character occurring in the practice of Dr. G. R. Henry, of Burlington, Iowa.

Gaseous Tumor of the Labium.—Dr. LUSK reported a case of supposed abscess of the labium, but which turned out to be, on exploratory puncture with an hypodermic needle, a sac filled with gas. It was subsequently proved to be the sac of an old abscess that communicated with the rectum.

Dr. RODENSTEIN presented a fœtus which had only a partial development of the right leg, with entire absence of the left one.

Reviews and Literary Notes.

A Manual and Atlas of Medical Ophthalmoscopy. By W. R. GOWERS, M. D., F. R. C. P., etc. London: J. & A. Churchill, 1879. Pp. 345.

SINCE the publication, in 1871, of Clifford Allbutt's work on the same subject, there has not been so important an addition to medical ophthalmoscopy. It is at once evident in reading the book, that the writer, like Dr. Allbutt, is a good ophthalmoscopist, and an accurate and close observer. Most of the ophthalmoscopic observations made by purely medical observers are inaccurate, and often fanciful, and it is therefore the more worthy of remark and commendation when such good work as that furnished by the two authors mentioned is given to the public. We should like to see a much more extended knowledge of the use of the instrument among physicians, and a wider extension of its use into general practice. Such books as Allbutt's and the one now under review will do more in this direction than those written for specialists, and will, we hope, be widely read by the profession.

In the introductory chapter some very useful instructions are given about the method to be observed in the study of the ophthalmoscope. Especial importance is attributed to becoming acquainted with the use of the ophthalmoscope, and to learning the normal appearances of the fundus oculi, with the changes in its appearance which are congenital, and also those which are of purely ocular significance, such as posterior staphyloma, glaucomatous excavation, and so on. It is a point well taken by the author that this kind of information should be gained by a course of study with an ophthalmic surgeon before inferences can safely be drawn regarding the value of alterations met with in extra-ocular disease. Two other important factors to success rightly emphasized are the importance of being familiar with both the direct and the indirect methods of examining, and the necessity of acquiring the requisite skill in the examination of the eye without the use of atropine to dilate the pupil.

In the consideration of what may be learned regarding the condition of the general system by observations of the fundus oculi, those changes which are of general medical significance are first considered, viz., the changes in the blood-vessels and the circulation; the changes, inflammatory and atrophic, in the optic nerve; and, more briefly, the alterations in the retina and choroid; and, in the second place, the changes which are met with in special diseases of the nervous and general systems. This makes a very natural division of the systematic part of the work. The account of the changes in the blood-vessels and circulation is preceded by a very good explanation of the normal conditions of the vessels as to size, arrangement, etc. And the author shows his good sense and competency by insisting upon how these may vary within normal limits, and upon how difficult it often is to make the diagnosis of hyperæmia of the optic nerves and retina. Then follows a minute and carefully written account of structural changes in the vessels and in the circulation. In the description of optic neuritis, or "papillitis," as the author calls it (a term we do not see the necessity of introducing), a very good account is given of the pathological changes which are found in the nerve. The various theories put forward of the mechanism by which intra-cranial disease acts in producing neuritis receive careful revision at the author's hands. After describing the several theories which have been advanced, which are well known to those familiar with ophthalmic literature, he comes to the following conclusion: "This remarkable difference of opinion regarding a fact so fundamental is a striking proof that a much more careful observation is needed of the conditions of origin of optic neuritis, the pathological changes which can be traced in it, and the allied conditions in which it does not arise, before any adequate theory of its causation can be formed, or any effective distinction into varieties can be made." Without desiring to establish any definite theory of its causation himself, he offers some considerations which oppose the exclusive adoption of any one theory.

We have drawn attention to this part of the book because it is an interesting subject, and one which will interest both ophthalmologists and those who particularly study cerebral pathology. The views put forth by Dr. Gowers show much ability and thought, and are worthy of consideration especially, perhaps, by oculists, who mostly adhere to the view advanced by Schmidt, that the mode by which intra-cranial disease extends to the eye is along the subvaginal space of the optic nerve, which is continuous with and can be injected from the subdural space around the brain. This theory of Schmidt, which has been largely accepted in Germany, is especially opposed by Gowers. Changes in the nerve (atrophy), and in the retina and choroid, occupy the rest of the pages devoted to this part of the book.

Part II., "Ophthalmoscopic Changes in Special Diseases," contains the results of the author's experience in the ophthalmoscopic pictures of a very large number of diseases, as well as an account of the observations of others. These observations include not only affections of the brain and nervous system, but those of the urinary, circulatory, and digestive systems; diseases of the blood, lungs, sexual organs, and skin, chronic and acute general diseases, and finally the ophthalmoscopic signs of death. We merely make this enumeration for the purpose of showing how complete the scope of the work is; although, if we were to extend this review, much might be said of the accuracy and interest which are to be found in nearly every part.

The author has added (unnecessarily, we think) an appendix on "Ophthalmoscopes," etc., but there is no objection to such a course, although it would have been better to allow the student to get his information about such matters from his teacher, or from a book on the ophthalmoscope.

In another appendix the histories of fifty cases are given, which are for the most part those of which the ophthalmoscopic appearances are figured in the plates. The plates are mainly autotype reproductions of sepia drawings, which the author thinks give a more exact representation of delicate pathological appearances than can be obtained by chromolithography. The latter process has been employed for some subjects in which changes of tint are of predominant importance. It is intended that the plates should be studied with the aid of the descriptions prefixed to them, and that, thus examined, those who are accustomed to the use of the ophthalmoscope will not miss the absent colors. But, for all that, we still think well-executed chromo-lithographs far preferable. We have spoken in no exaggerated terms of Dr. Gowers's book, but only accorded to it well-deserved praise, and advise both general practitioners and specialists to read it.

First Lines in Therapeutics, as based on the Modes and the Processes of Healing, as occurring spontaneously in Disease; and on the Modes and Processes of Dying, as resulting naturally from Disease. By ALEXANDER HARVEY, M. D., etc. 16mo, pp. xvi.–278. New York: D. Appleton & Co., 1879.

WE take pleasure in recommending this book to the profession, as it meets many of our views of a fundamental subject neglected in the didactic courses of our American medical schools. The author is neither an extreme conservative, as regards therapeutics, nor a therapeutical nihilist; and, while asserting the supremacy of nature over art, he has endeavored in treating the subject to "place nature and art on their true footing." Sir Thomas Watson says: "It is certain that a sound system of therapeutics must rest upon a consideration of what nature in many cases is capable, and in some fewer cases is incapable, of doing in disease: and, on the other hand, of what art may do in helping or hindering nature"; and, while every thoughtful physician must recognize the fact, comparatively little application is made of the principle.

Although the work is rather elementary in its nature, we believe many old practitioners will read "First Lines" with interest, and no small amount of profit.

Photographic Illustrations of Skin-Diseases. By GEORGE HENRY FOX, A. M., M. D. Nos. III. to VI. New York: E. B. Treat. Price, $2 a number.

WE have already noticed very favorably the earlier numbers of this work, which is to be complete in twelve parts. Each part contains four illustrations, consisting of photographic representations of typical cases of skin-disease, colored by hand, under the supervision of the author. The work as far as it has appeared is certainly the most successful of the kind that has been published. Dr. Fox has taken special pains to select suitable cases for the photographic art, and has reproduced them with life-like accuracy both in form and color. The accompanying notes descriptive of each disease, its character, course, and treatment, are by no means unimportant. They are sufficiently full to constitute a valuable guide to the practitioner, who will find them eminently practical and useful in his every-day duties. The photographs and letter-press are both issued in the best style known to the art of publication, and, taken altogether, we find the work exceedingly satisfactory.

The Physician's Daily Pocket-Record, comprising a Visiting List, many Useful Memoranda, Tables, etc. By S. W. Butler, M. D. Edited by D. G. Brinton, M. D. Fourteenth year. Philadelphia: Office of the "Medical and Surgical Reporter," 1880.

This pocket-book seems to be one of the best of the various publications of that sort. It contains a "perpetual almanac" (reasonably perpetual, since it will serve until the year 1917); a table of doses, in both apothecaries' weight and the metric system, supplemented with a list of doses for hypodermic injection, for inhalation, for suppositories, and for pessaries; memoranda on the treatment of poisoning and asphyxia, and on the examination of urine; and brief notes on new remedies. The visiting list proper makes up the greater part of the rest of the little book, with obstetrical memoranda, cash account, etc. It is provided with a spring-flap, which will, no doubt, be found convenient.

The New Cyclopædia of Family Medicine. "Our Home Physician." By George M. Beard, A. M., M. D., assisted by specialists in the various departments. New York: E. B. Treat. Price, 50c. a number.

We have received Nos. I. to XVI. of this rewritten work, which is to be complete in twenty-two numbers. It is undoubtedly the most thorough and carefully prepared of the popular works on medicine. It is essentially modern, and contains a large amount of valuable information furnished by gentlemen of excellent standing in the profession. The illustrations are good in the main, many of them being original, and the style of the work is very creditable to the publisher.

A Manual of Psychological Medicine; containing the Lunacy Laws, the Nosology, Etiology, Statistics, Description, Diagnosis, Pathology, and Treatment of Insanity, with an Appendix of Cases. By John Charles Bucknill, M. D., F. R. S., etc., and Daniel Hack Tuke, M. D., F. R. C. P., etc. Fourth Edition. Philadelphia: Lindsay & Blakiston, 1879.

In the six years that have elapsed since the last edition of this valuable work a large amount of matter has been published on the subject of insanity. This has been carefully sifted by the authors, and what has proven most important and trustworthy has been incorporated in their new edition. The opinions of the authors themselves have not been materially changed. Dr. Batty Tuke contributes part of the chapter on the histology of insanity, which is illustrated by new plates. In its present improved form, the work is an invaluable one to the student of psychology.

Transactions of the Pathological Society of Philadelphia. Vol. VIII., containing the Report of the Proceedings from September, 1877, to July, 1878. Edited by J. Henry C. Simes, M. D., etc. 8vo, pp. xx.–225. Philadelphia: J. B. Lippincott & Co., 1879.

Any one who will take the pains to peruse the cases reported in this volume will receive many excellent points. It is as valuable as its predecessors, including the proceedings of the Pathological Society of Philadelphia for the year. The cases are classified methodically, and the book corresponds in style with the rest of the series.

Long Life and how to reach it. By Joseph G. Richardson, M. D., etc. 24mo, pp. viii.–160. Philadelphia: Lindsay & Blakiston, 1879.

This little volume is one of a series of health primers edited by W. W. Keene, M. D. The object of the series, and of this book preëminently, is preventive medicine, justly considered the highest development in the healing art. The work consists of sixteen chapters devoted to practical points in this department of hygienic science ; and, although intended rather for the laity than for the professional reader, it contains many practical hints for the physician.

Summer and its Diseases. By James C. Wilson, M. D., etc. 24mo, pp. 160. Philadelphia: Lindsay & Blakiston, 1879.

This book is one of the American Health Primers. It contains in a popular form many essentials of prophylaxis, symptomatology, and treatment of the so-called summer diseases.

The Physician's Visiting List for 1880. Philadelphia: Lindsay & Blakiston.

The profession must be familiar with this convenient diary. In consequence of its compactness and good arrangement, it will continue to be one of the leading visiting lists in use.

Books and Pamphlets Received.—St. George's Hospital Reports. Edited by William Howship Dickinson, M. D., F. R. C. P., and Thomas Pickering Pick, F. R. C. S. Vol. IX., 1877–'78. London: J. & A. Churchill, 1879. Pp. xiv.–815.

Œsophagismus, a Typical Case of True Spasmodic Stricture of the Œsophagus resembling Organic Stricture, completely cured by the Passage of a Full-sized Œsophageal Sound. With remarks on the subject. By J. J. Henna, M. D., etc. Reprinted from "The Hospital Gazette." New York: Chas. L. Bermingham & Co., 1879. Pp. 12.

La Mortalidad Infantil en la Ciudad de Buenos Aires, Estudio Comparativo con la Mortalidad Infantil de Rio de Janeiro, Montevideo, Lima, Méjico, y otras Ciudades Americanas. Por el Dor. Emilio R. Coni, Miembre honorario, etc. Buenos Aires: Pablo E. Coni, 1879. Pp. 62.

Annual Address before the American Academy of Medicine, at New York, September 16, 1879, by Lewis H. Steiner, A. M., M. D., of Frederick, Md., President of the Academy, etc. Published by direction of the Academy. New York: Chas. L. Bermingham & Co., 1879. Pp. 16.

History of Medicine in New Jersey, and of its Medical Men, from the Settlement of the Province to A. D. 1800. By Stephen Wickes, A. M., M. D., etc. Newark, N. J.: Martin R. Dennis & Co., 1879. Pp. vii.–449.

How to take Care of our Eyes, with Advice to Parents and Teachers in regard to the Management of the Eyes of Children. By Henry C. Angell, M. D., etc. Boston: Roberts Brothers, 1878. Pp. 70. [Price, 50 cents.]

Paracentesis of the Pericardium. A Consideration of the Surgical Treatment of Pericardial Effusions. By John B. Roberts, A. M., M. D., etc. Philadelphia: J. B. Lippincott & Co., 1880. Pp. 100.

Transactions of the New York Pathological Society. Vol. III. Edited by John C. Peters, M. D., etc. New York: Wm. Wood & Co., 1879. Pp. xix.–335.

Transactions of the Medical Society of the State of Pennsylvania, at its Thirtieth Annual Session, held at Chester, May, 1879. Vol. XII., Part II. Published by the Society. Philadelphia: 1879. Pp. vi.–519 to 999.

American Health Primers. Eyesight, and how to care for it. By George C. Harlan, M. D., etc. Philadelphia: Lindsay & Blakiston, 1879. Pp. 139.

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Reports on the Progress of Medicine.

QUARTERLY REPORT ON LARYNGOLOGY.

No. XX.

By GEORGE M. LEFFERTS, M. D.,
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Larynx.

1. Ariza.—General Considerations upon the Subject of Laryngeal Paralysis, with Case. "Anfiteatro Anat.," Madrid, vii., 133, 1879.
2. Caterinopoulas.—A Study of Fractures of the Larynx and their Treatment by Immediate Thyrotomy. "Thèse de Paris," August 5, 1879.
3. Cohen.—A Case of Circumscribed Epithelioma of the Larynx. "Trans. Path. Soc. Philadelphia," viii., 82, 1878–9.
4. Cohen.—The Throat and Voice. Phila., 1879.

5. CREVELING.—Laryngeal Phthisis. "Ohio Med. Recorder," Columbus, iv., 156, 1878–9.
6. CUTTER.—The Uterus and the Larynx. "St. Louis Med. and Surg. Jour.," November, 1879.
7. DAY.—On Croup. "Med. Press and Circular," October 29, November 5, 1879.
8. FRIEDREICH.—On Percussion of the Larynx and Trachea. "Deut. Archiv. für klin. Med.," September 23, 1879.
9. FREUDENBERGER.—On a Case of Perichondritis Laryngea due to Typhoid Fever. "Lond. Med. Record," November 15, 1879.
10. HARTMAN. — Laryngological Periscope, No. V. "Maryland Med. Jour.," September, 1879.
11. JAMES.—Stammering of the Vocal Cords. "Lancet," November 15, 1879.
12. JOFFROY.—On the Employment of Bromide of Potassium in Spasm of the Glottis. "Revue Mens. de Méd. et de Chir.," October 10, 1879.
13. KELLER.—On Cysts of the Epiglottis. "Monatssch. für Ohrenheilkunde," No. 9, 1879.
14. KRIEG.—A Case of Spontaneous Laryngeal Fistula in Tubercular Laryngitis. "Archiv. für path. Anat. und Phys.," Bd. lxxii., p. 92, 1879.
15. KRISHABER.—On Cancer of the Larynx. "Ann. des Mal. de l'Oreille et du Larynx," No. 5, 1879.
16. LANGE. — A New Method of Operating upon Adenoid Vegetations. "Ann. des Mal. de l'Oreille et du Larynx," No. 5, 1879.
17. LE MARCHANT.—On Laryngeal Paralysis. Paris, 1879. 4to. Thesis, No. 476.
18. LOMIKOWSKY.—The Laryngoscopic Appearances in Sclerosis and Cerebro-Spinal Plaques. "Berliner klin. Wochensch.," No. 41, 1879.
19. MACKENZIE.—Syphilis of the Larynx. "St. Louis Med. and Surg. Journal," No. 3, September, 1879.
20. MARTEL.—A Case of Paralysis of the Crico-Thyroid Muscles. "Ann. des Mal. de l'Oreille et du Larynx," No. 5, 1879.
21. MASSEI.—Chorea Laryngealis. "Ann. des Mal. de l'Oreille et du Larynx," No. 5, 1879.
22. MEYER.—On Phlyctenular Inflammation of the Vocal Cords. "Berliner klin. Wochensch.," No. 41, 1879.
23. MOURE.—Laryngeal Syphilis and Phthisis from a Diagnostic Point of View. In 8vo. Delahaye, Paris, 1879.
24. MOURE.—On Primitive Cancer of the Larynx. Case. "Jour. de Méd. de Bordeaux," ix., 57, 1878–9.
25. PETEL.—Ablation of the Pharynx, a portion of the Œsophagus, the Larynx, a part of the Trachea and of the Thyroid Gland. Case. "Le Mouvement Méd.," No. 42, 1879.
26. POTAIN.—Tuberculous Laryngitis; Aphonia Stridens. Case. "Gaz. des Hôp.," 113, 1879.
27. REICHERT.—A New Method of Raising the Epiglottis in Laryngsocopic Operations. Hirschwald. Berlin, 1879.
28. SCHECH.—On Phonetic Cramp of the Glottis. "Centralblatt für med. Wis.," No. 43, 1879.
29. STRAUSS.—A New Method of Operating on Laryngeal Polypi. "Monatssch. für Ohrenheilkunde," No. 10, 1879.
30. SODERBAUM.—Extirpation of a Laryngeal Polypus. Case. "Eira-Göteborg," iii., 498, 1878–'9.
31. TSHILTOF.—Practical Observations on Laryngeal Surgery. Vilna, 1879, 8vo.

32. Wilson.—The Throat in Tuberculosis. "Phil. Med. and Surg. Reporter," November 8, 1879.
33. Zaverthal.—I. Syphilitic Affections of the Larynx. II. Contraction of the Larynx and Tracheotomy. III. Bronchial Asthma. "Trans. International Congress at Amsterdam." 1879.
34. Zaverthal.—On the Practice of Local Anæsthesia during Endo-Laryngeal Operations. "Ann. des Mal. de l'Oreille et du Larynx," No. 5, 1879.

4. In Cohen's excellent little treatise, directed to the attention of general readers, there is no pretension to teach either the art of practicing medicine or the art of cultivating the voice. His aim has been to offer some scientific facts concerning the throat and voice, and to present for consideration some opinions and advice based upon an intelligent appreciation of these facts.

5. *Laryngeal Phthisis.*—Creveling coincides with Virchow and Lennox Browne in the opinion that true tubercle can occur in the larynx. His article contains nothing new.

6. *Reflex Laryngeal and Pharyngeal Disturbance from Uterine Disease.*—Dr. Cutter's aim, in his interesting and valuable essay, is to try to show that organic affections of the laryngological tract do occur in connection with organic uterine diseases, as prime factors; that is, dislocations, flexions, ulcerations, hypertrophies, tumors, and cancerous conditions of the uterus may produce affections of the throat, which, to yield, must be treated by attempts directed to the uterus.

8. Friedreich claims that *laryngo-tracheal percussion* possesses a scientific interest unaltered by the introduction of the laryngoscope, with its certainty and precision, in diagnosis of affections of the upper air-passages, while by means of it the demonstration of pure physical facts, in an evident manner, is possible, and different processes in the interior of the larynx carried to an acoustic expression. Aside from these points, the careful review of the results of such percussion will lead to the appreciation of diseased conditions of the parenchyma of the lung. We can not agree with him that the practical results of such percussion will at all compare with those furnished by the laryngeal mirror.

9. *A Case of Perichondritis Laryngea due to Typhoid Fever.*—Dr. Freudenberger reports a case of perichondritis laryngea which has lately come under observation in Professor Ziemssen's clinic in Munich. The patient, a stone-mason, aged twenty-nine, had entered the hospital on February 25th with typhoid fever. On the 28th he became aphonic, but had no pain in the larynx. In the course of the first weeks in March he had purulent inflammation of the middle ear on both sides, resulting in perforation of both tympanic membranes. Later on the right arytenoid cartilage and the right vocal cord became immovable; the patient was quite aphonic. On April 15th the otitis was cured, the perforations had healed, and the patient could hear better. He was, however, still very hoarse, and a flat, dark-red swelling of the size of a small pea appeared on the right vocal process. The mucous membrane around it was much injected and swollen. The patient then left the hospital in spite of all that was said to dissuade him from so doing. Eight days later he came back, suffering from intense laryngeal dyspnœa. On examining his throat with the laryngoscope, the glottis was found to be very narrow and pushed toward the left by a considerable swelling of the right side of the larynx. The right vocal cord and the hypoglottic region were prominent and immovable, and the mucous membrane was of a dark-red color; the ary-epiglottic fold was slightly swollen. The larynx was rather tender to external pressure. Tracheotomy was performed to save the patient's life. The results of the operation are not given in the paper. Ziemssen remarked,

when speaking of the case in the clinic, that perichondritis as a sequel to typhoid fever was now no longer so frequent as it used to be before his antipyretic treatment had been adopted.

11. *Stammering of the Vocal Cords.*—The disease appears to be due to defective coördination of the intrinsic laryngeal muscles. The vocal apparatus fails at intervals to fully obey the will, the failure giving rise to sudden interruptions of the voice, while the articulating power may be unaffected. As, in the generally recognized impediments of speech, the harmonious action of the groups of muscles engaged in articulation is disturbed; so, in this vocal derangement, which James has termed stammering of the vocal cords, there is an analogous laryngeal motor disturbance. The disordered coördination which so commonly interferes with speech here affects the voice only. The movements required for articulating syllables are perfectly performed, but the production of vocal sound is at intervals suddenly suspended. Syllablization—to coin a word—is complete, phonation defective. The affection may cause the patient to stop speaking, as he is conscious of what he sometimes calls a "catch in the breath"; or he may continue a sentence from which some words will be lost to the listener. A year or two ago a patient under his care, who suffered from this affection, was careful to explain that, though he called it a "catch in the breath," he knew well enough that the stop in the sound had no more to do with respiration than with articulation. A clergyman, who suffered from the disease in an aggravated degree, was deeply distressed by his consciousness of the fact that, though he kept on reading the service, some of the words dropped soundless from him, a statement verified by friends who accompanied him, who stated that his lips moved in the usual way for the utterance of words and phrases which were lost in silence. He had been under treatment for a considerable period, and assured James that he had a "clergyman's throat," which had been attempted to be cured by severe measures, none of which had had any effect on his malady. James found the defective action of the cords, the larynx being otherwise healthy, and was thus able at once to put him on the road to recovery.

The sudden interruption of function of the vocal cords is exceedingly difficult to demonstrate; it is not likely to occur during the production of such sounds as are usually emitted in laryngoscopic examinations. James had to watch for a long time and to devise special methods before obtaining ocular demonstration of this stammering of the vocal cords. Isolated sounds are generally correctly articulated even by confirmed stammerers; so it is in these vocal impediments, the patient can emit separate tones, and may, as could the clergyman named, run up and down the gamut. It is in the rapid emission of certain combinations of sounds that the sudden arrest must be watched for. The vocal cords may, with patience, perhaps be observed at the moment when they hesitate or tremble, at a point not sufficiently approximated for phonation, where they may seem to move as with a series of ineffectual efforts to obey the will, or display the irregular, paroxysmal, or spasmodic actions seen in the mouths of stammerers. In less aggravated cases there may be less distinct interference with voice production, analogous to the defects of utterance called "hesitation of speech." In fact, James states broadly that most of the derangements commonly grouped under the expressive term "impediments of speech" may henceforth be said to have their counterparts in similar vocal impediments occurring within the larynx.

13. After alluding to the rarity of *large cysts of the epiglottis*, Keller reports a case of his own, and in connection with it raises the interesting question as to the possibility of these larger cysts having another cause than

mere retention of the contents and swelling, and encapsulation with development of a serous membrane in muciparous follicles. The location of the cyst and its constant recurrence despite treatment, in his case, have led him to believe that this cause, undoubtedly true for the smaller cysts, will not apply to the larger, which are always located upon the lingual face of the epiglottis, involving the fossæ glosso-epiglotticæ, and must have its cause in some special anatomical relation. Luschka describes the hyo-epiglottic membrane as forming a lateral closed duplicature between the greater cornua of the hyoid bone and the edge of the epiglottis with the hyo-thyroid membrane, and says that this duplicature bounds a space laterally where the anterior wall is made up of the hyo-thyroid membrane together with the neighboring part of the thyroid cartilage, its posterior by the epiglottis, and its nearly horizontal roof by the hyo-epiglottic membrane; this space is filled with fatty cells, and is rich in blood-vessels, and in it he has found from two to three mucous follicles (bursæ mucosæ) of the size of a pea. He also alludes to the practical importance of the bursæ which lie before and behind the hyoid bone. As they often lead to cysts of some size, their swelling directly under the hyo-epiglottic membrane, in other words, beneath the mucous membrane of the so-called glosso-epiglottic ligament and beneath the fossæ of the same name, naturally tends toward that point where there is the least resistance, and this is the thin membranous roof of the triangle above mentioned. Posteriorly lies the lower part of the epiglottis, while anteriorly and inferiorly, as well as laterally, lie the firm hyo-thyroid ligament and a part of the thyroid cartilage, to block the way.

For these reasons Keller regards the large epiglottic cysts as hygromata of the above described bursæ, or little muciparous follicles, in the glosso-epiglottic fossa, which in their growth involve more or less of the anterior face of the epiglottis, and thus explains the difficulty in his case of emptying the sac despite frequent incisions, the cause being the fibrous partition walls frequent in hygromata, likewise the rapid reproduction of the contents of the sac, rarely found in epiglottic cysts and not checked in his case by energetic cauterizations.

15. In the continuation of his valuable article upon "Cancer of the Larynx," Krishaber urges that, in suspected cases, syphilis of the larynx be eliminated as a cause of the laryngeal ulceration by placing the patient upon specific treatment for three weeks. If no result is apparent, he suspends treatment for about ten days, when he resumes it again for a fortnight. If syphilis, lupus, and tuberculosis can be excluded, the case is certainly one of cancer. To alleviate the pain he applies a strong solution of morphine to the diseased part, and recommends laudanum as particularly useful both as a sedative and as an astringent. In case of œdema occurring, he applies leeches and blisters to the throat, and solutions of chromic and acetic acid alternately to the larynx. The breath may be deodorized with solutions of permanganate of potassium, or phenic acid, or chloral hydrate, and hæmorrhage checked by the direct application of persulphate of iron. Tracheotomy must be performed as early as possible, preferably by the thermo-cautery of Paquelin. The tracheal incision should be low, and division of the cricoid avoided, because, when divided, necrosis rapidly follows. The canula should have no opening on its convex surface, and should be long enough to reach below the tumor. When it is impossible to remove the tumor by the natural passages, a thyrotomy, or an intercrico-thyrotomy, or, as a last resort, the ablation of the entire larynx, will be necessary. In cases where hæmorrhage is feared, or where the thermo- or galvano-cautery is used, tracheotomy should always be performed, if possible several days before the main operation, and during the operation Trendelenburg's apparatus should be used. The operation com-

prises three stages, namely: exposure of the larynx—its isolation from the surrounding parts, and its extraction. To accomplish the first, an incision is made from the lower border of the hyoid bone to within a centimetre of the tracheal wound. Or, a T-shaped incision may be used, the horizontal cut passing a centimetre below the upper border of the thyroid, or very nearly on a level with the hyoid, and being carried to the margins of the sterno-cleido-mastoids, while the horizontal incision should be of the same length as in the first case. The larynx being exposed, it is dissected carefully from the surrounding tissues. Billroth proceeds from below upward, first separating the trachea by a section passing just below the cricoid, then dissecting the posterior wall from its attachment to the œsophagus, and finally severs the thyro-hyoid ligament, the last attachment of the organ. If the cancer does not extend too low, it is well to make a transverse section through the cricoid, in order to leave an incompressible orifice to the trachea. In the method proposed by Maas, the extirpation is commenced by division of the superior attachments of the larynx, the thyro-hyoid and thyro-epiglottic ligaments. The larynx is then drawn forward to facilitate the dissection of the posterior wall, and the lower section made as in the case above. If the upper part of the œsophagus be implicated, it also must be removed. An analysis of twelve cases of extirpation of the larynx shows that in five cases death followed from the second to the fourteenth day, most frequently the fourth, from pulmonary complications, most commonly pneumonia, most rarely gangrene. In one case death (on the fifth day) was due to collapse, from which the patient never rallied after the operation. In two cases which seemed for some time to have been successful, the patients were carried off by relapse, in the first case of Billroth's three months, and in that of Heine six months, after operation. Bottini's patient was well and doing the work of a postman three years after operation. Twelve days after the operation Langenbeck's patient was alive, but no further report of this case has been published. The same may be said of the cases of Maas and Foulis, reported as cures too soon after the operation. There exists therefore but one single case in which extirpation of the larynx has been followed by recovery. It remains to be proved whether in this case the diagnosis was correct and the tumor really cancerous.

18. *The Laryngeal Appearances in Cerebro-Spinal Sclerosis.*—All authors who describe disseminated cerebro-spinal sclerosis refer, among other disturbances, to that of speech as a constant symptom, but Lomikowsky states that none have as yet carefully investigated this phenomenon nor made a laryngoscopic examination in such cases. After describing the other symptoms of the affection, which were well marked in his case (man, æt. 45), he tells us that the voice was peculiar, a veritable *vox anserina*, during ordinary speech; that a shrill change was remarked in passing from a high to a deep tone; and that the patient was unable, even for a short time, to hold an even note. The cause lay in the impossibility, during the course of a given time, of retaining the tension of the vocal cords equally. During phonation of the letters *e* and *i* an irregular vibration of the vocal cords was always seen in the laryngoscope, and was specially noticeable in forcing the tone during the phonation of the letter *i*. The patient was well acquainted with the vocal scale, but was totally unable to take a given note, and felt, before such effort, that it would be impossible to succeed. The unequal vibration of the vocal cords (trembling) seen in the case is ascribed to a defective coördination of the muscular power of the laryngeal muscles.

19. Mackenzie gives some interesting statistics as to the effect of the seasons of the year upon the manifestation of syphilis in the larynx. He finds that two thirds of the cases found occurred between September and

April. He finds also that tertiary manifestations are more common than secondary in the proportion of eighteen to eleven. In secondary syphilis, he says, condylomata are the most characteristic conditions, but chronic hyperæmia (without mucous tubercles) and superficial ulcerations are often met with. Different observers report variously as to the proportion of cases of condylomata to those of other secondary lesions of the larynx. This may be accounted for partly by the different seasons of the year in which the observations were taken, and partly by the fleeting character of laryngeal condylomata, and by the different appearance which condylomata present in the larynx as compared with the pharynx. In the larynx they generally appear as smooth green projections, sometimes round, more often oval, varying in diameter from three to seven millimetres. They are seldom so white as in the larynx, and the surrounding mucous membrane is not generally so congested. Moreover, they are less disposed to superficial ulceration, and they generally disappear quickly, even without treatment. The epiglottis and inter-arytenoid commissure are most frequently affected, but they are occasionally found in the vocal cords. Superficial ulcerations occasionally occur from six to twelve months after primary infection. Obstinate congestion of the laryngeal mucous membrane is not uncommon, but it is often impossible to tell whether this condition is due to the syphilitic dyscrasia. M. Daud has gone so far as to describe roseolar, papular, and tubercular eruptions of the laryngeal mucous membrane, but others have failed to confirm his observations. The author regards laryngeal lesions occurring more than two years after syphilitic infection as tertiary. Gummata, he says, are occasionally formed in the sub-mucous tissue and muscles of the larynx. They usually appear as round, smooth elevations, generally of the same color as the rest of the mucous membrane, but sometimes of a yellow tint. They are most frequently found in the anterior surface of the posterior wall of the larynx, and generally in groups.

Hereditary syphilis of the larynx is occasionally met with in children. The author has never seen a case in a child younger than eleven years, although Isidor Frankel reports one in an infant. Nothing new in treatment is suggested.

20. *Paralysis of the Crico-Thyroid Muscles.*—In a case of general tuberculosis, with paralysis of the crico-thyroid muscles, the patient was able to sound but one musical note, do^2 [*sic*]. His speaking voice was in the same very low pitch. Examination of the larynx demonstrated an elliptical instead of a parallel opening between the cords, and when the patient phonated, a delicate transparent membrane, the *membrane vocale*, was seen to detach itself from the free border of the vocal cords, giving to the rima glottidis a grayish appearance.

22. *Phlyctenular Inflammation of the Vocal Cords.*—There occurred not long since in Munich an epidemic of herpes, during which Meyer had an opportunity of seeing in a few cases, besides the vesicles on the lips, etc., slight ulcers upon the pharyngeal mucous membrane and over the arytænoids, which unquestionably took their origin from former vesicles, and gave rise to slight dysphagia and laryngeal irritation. So unimportant and so rare was this phlyctenular laryngitis, however, that he gave it no serious thought until a later experience taught him that it could occur primarily and of such a grade as to render a differential diagnosis between it and ulcerative affections of the larynx, especially syphilis, a matter of some difficulty. His patient was a girl of eighteen, whose mother suffered from a syphilitic throat affection. An examination of the former's larynx showed a small, white, punctate ulcer on the free edge of the left vocal cord, and a thickening of the mucous membrane at a corresponding point on the right. The mucous membrane of the larynx, pharynx, and mouth,

with this exception, was normal. Some little time later an herpetic eruption appeared on the cornea, alæ of the nose, and upper lip. Meyer remarks that his first diagnosis of a secondary syphilis of the larynx may be pardoned, as the inflamed vocal cords, the erosion, and total aphonia, together with the fact of the mother's syphilis, which had lasted for months, might easily lead one astray. The superficial epithelial thickening of a vocal cord was unknown to him, however, in secondary laryngeal syphilis, and the appearance of the herpetic eruption upon the lips, etc., later on in the course of the affection, guided him to a correct appreciation of the nature of the affection.

25. The case given under Petel's name is but a report of that of Billroth.

27. Reichert's new method of *elevating a depressed or overhanging epiglottis* consists in pressing downward and forward the median glosso-epiglottidean ligament, or the tissues in that neighborhood, by means of an instrument shaped at its end something like the handle of the ordinary grooved director of our pocket-cases.

28. As a supplement to Schnitzler's case, Schech reports two of *phonetic cramp of the glottis*, which he terms dysphonia spastica, as a slight grade of aphonia. In neither case was the voice lost, but partly veiled and partly hesitating—in either case only momentarily. The laryngoscopic examination presented no noteworthy appearances indicative of the cause of the affection. Schech believes with Schnitzler and Heymann, that the affection belongs to the same class as writer's cramp, and says that it must be distinguished from chorea of the glottis, from stuttering, and from aphthongia. In treatment he recommends rest of the voice at first, then methodical vocal exercises, and finally electricity in its different forms, arsenic, bromide of potassium, atropia, etc. Constitutional indications must be appropriately met.

29. Strauss, following Voltolini, used the sponge to operate upon soft laryngeal polypi, with some modifications of the latter's method.

32. *The Throat in Tuberculosis.*—Wilson says that the first appearances, as far as diagnosis is concerned, are of most importance to us. The paleness of the mucous membrane described by Sawyer is not a simple anæmic condition, for the color is rather a muddy-grayish hue, and many congested capillaries are apparent, frequently producing a scarlet hue, sometimes even livid. The epiglottis soon becomes more or less thickened and tumefied, frequently much misshapen. The thickening is not a simple œdema, but an actual infiltration and tumefaction of the submucous tissue.

When ulceration occurs, it may be either in simple superficial erosions, or more frequently in deeper ragged ulcers, with overhanging edges and extending to the deeper structures, sometimes even perforating the cartilages. When sloughing and ulceration of the epiglottis occur, it is almost always upon one side of the median line, in a diagonal direction, following the course of the little arterial twig supplying the tissues. The loss of substance occurs, too, upon the side corresponding to the diseased lung. The fearful condition of the poor patient who has such a mutilated epiglottis can hardly be depicted. He can swallow neither liquids nor solids without excruciating pain, and the torture is so great that he will actually starve himself to death rather than make the attempt. Nature can make no successful effort at repair of the rent; for hundreds of times each day, or whenever even saliva is swallowed, the raw edges of the ulcer are drawn apart, effectually preventing any effort at healing.

34. *Local Anæsthesia of the Larynx.*—Zaverthal reviews the literature of this subject, giving the experiments tried by Türck, Coen, Rühle, Rames, Reimschlag, Tobold, and Schrötter, for producing local anæsthesia of the larynx by means of chloroform, morphine, bromide of potassium,

and cold solutions of tannin or alum, and explains the objections of those opposed to this method, such as Schnitzler, Voltolini, Bruns, Fauvel, Mandl, and Massei. In order to prove the value of these respective opinions, he gives the result of his own experiments upon dogs, made to test three chief questions.

1. Do anæsthetics applied to the larynx produce complete anæsthesia?
2. If anæsthesia be produced, how long will it last?
3. What dangers or phenomena in general accompany or follow this practice?

He experimented upon large and small dogs with chloroform, ether, morphine, hyoscyamin, distilled cherry-laurel water, and extract of hemlock, with the following results:

1. Local anæsthesia of the larynx can not be relied upon, even from the most powerful agents, whatever their nature or the method of their application. When it is obtained, which is rarely the case, it is always accompanied by the constitutional effects of the drug.
2. Attempts made to produce local anæsthesia of the larynx are not without serious dangers resulting from constitutional effects or severe inflammations.
3. The dangers vary in degree with the means employed, that of poisoning being very great from the use of the solutions of morphine, and, if chloroform be used, of severe laryngitis.

Of forty-seven cases, in but five was complete anæsthesia obtained. In twenty-seven patients the anæsthesia was incomplete, and the applications had to be repeated two or three times, while in fifteen cases it was necessary to abandon it altogether.

From this the author decides against local anæsthesia in intra-laryngeal operations, and recommends the following rules:

1. Disturb the patient as little as possible by preliminary proceedings.
2. Calculate precisely the curve necessary to be given to the instrument, and arrive *cito et tuto* upon the field of operation.
3. Prove to the patient that the introduction of an instrument into the larynx will not suffocate him.
4. Plunge the instrument deliberately, gently, but without hesitation to the point to be operated upon.
5. Have a very exact understanding of the case, so as to operate as rapidly as possible.

PHARYNX.

1. BILLROTH.—Extirpation of the Pharynx. "Le Progrès Méd.," No. 35, 1879.
2. BŒCKEL.—The Transverse Incision as a Preliminary to the Extraction of Naso-Pharyngeal Polypi. "La France Méd.," No. 66, 1879.
3. CHITWOOD.—On the Local Use of Chloral Hydrate in Tonsillitis, Diphtheria, and Kindred Sore Throats. "Lond. Med. Record," October 15, 1879.
4. DABNEY.—Ergot in Pharyngitis. "Louisville Med. News," No. 205, 1879.
5. GANGHOFER.—On the Tonsilla and Bursa Pharyngea. "Sitzungsberichte der Akad. der Wissensch.," Heft. v., part 3, 1879.
6. GUSSENBAUER.—On the Buccal Extirpation of Tumors of the Roof of the Pharynx. "Centralblatt für Chir.," No. 44, 1879.
7. KNIGHT.—Retro-Pharyngeal Sarcoma. "St. Louis Med. and Surg. Journal," September, 1879.
8. LANGENBECK.—Extirpation of the Pharynx. "Le Progrès Méd.," No. 35, 1879.
9. LITTLEWOOD.—Epithelioma of the Pharynx and Œsophagus; Gastrotomy; Death in nine days. "Lancet," September 27, 1879.

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11. Manfredi.—A Case of Multiple Adenoma of the Naso-Pharynx. Morgagni, Napoli, xxi., 344, 1879.
12. Paci.—On a Rare Case of Pharyngeal Polypus, Extirpated by Means of the Galvano-Cautery. "Gior. Internaz. d. Sc. Med.," Napoli, 1879, N. S., i., 596–600.
13. Piérin.—On Epithelioma of the Tonsil. Paris, 8vo, 1879.
14. Porter.—Asthma from Reflex Causes. (Pharyngeal.) "Med. Record," October 11, 1879.
15. St. Germain.—On Amygdalotomy. "La France Méd.," Nos. 72 and 73, 1879.
16. Vibert.—A Case of Fibrous Tumor of the Pharynx. "Bull. et Mém. de la Soc. de Chir. de Paris," 1879, N. S., v., 615.
17. Ziem.—On Certain Rare Affections of the Velum. "Monatssch. für Ohrenheilkunde," No. 10, 1879.

1. *Extirpation of the Larynx and of the Pharynx.*—At the recent congress of German surgeons in Berlin, Professor Langenbeck stated that he had performed the operation of extirpation of the pharynx three times, and that he considered the operation justifiable, although all his cases were unsuccessful. The following are the steps in the operation: First of all, tracheotomy must be performed, and the canula of Trendelenburg introduced; then an incision is carried from the body of the lower jaw, midway between the symphysis and the angle, toward the greater cornu of the hyoid bone, and thence along the anterior border of the sterno-mastoid as far as the upper extremity of the tracheotomy incision. Next, the submaxillary gland must be removed, the lingual artery tied, the stylo-hyoid and the digastric muscles detached from the hyoid bone; the pharynx is then laid bare and can be dissected out, the larynx meanwhile being drawn to the opposite side. The principal dangers to be apprehended are periœsophageal phlegmon extending into the mediastinum, and pneumonia from the introduction of foreign bodies into the air-passages.

At the same congress, Professor Billroth stated that six weeks previously he had removed from a woman, aged forty-two years, *the pharynx, the cervical portion of the œsophagus, the larynx, a part of the trachea, and all the thyroid gland*, for a cancer of the pharynx involving the posterior portion of the larynx. He first performed a preventive tracheotomy, and nine days later proceeded to operate, after introducing the canula tampon of Trendelenburg. The incision was made along the anterior border of the sterno-mastoid. In the course of the operation Professor Billroth found that the tumor extended much farther than had been supposed, and as he advanced, step by step, he found himself compelled to remove successively all of the larynx except the epiglottis, the upper rings of the trachea, a large portion of the pharynx, the œsophagus as far as the sternum, and the whole of the thyroid body. An elastic tube was placed in the œsophagus for the introduction of aliment. During the first four weeks the patient did well, the wound gradually contracting, and the elastic tube was then removed in the hope that the pharynx would unite with the lower portion of the œsophagus and form a permanent canal for the passage of food. After the removal of the tube, however, deglutition was accompanied by suffocating attacks and vomiting, and the canal contracted, rendering the passage of bougies necessary. In the sixth week a false passage was made in the peri-œsophageal tissue. Pericarditis and death followed.

Kolaczek, of Breslau, removed a cancer of the posterior wall of the pharynx by a supra-hyoidean pharyngotomy, eight weeks before the congress met. The patient was still living at the date of the report, and was nourished through a tube placed in the œsophageal fistula. Koenig, of

Göttingen, and Gussenbauer, of Prague, have also removed cancers of the pharynx, and, like Langenbeck, lost their patients from pneumonia due to the introduction of food into the lungs. To avoid this danger, Thiersch has proposed the preliminary establishment of a gastric fistula.

3. *The Local Use of Chloral Hydrate in Tonsillitis, Diphtheria, and Kindred Sore Throats.*—Chitwood uses the following formula as a local application in tonsillitis, diphtheria, and other acute throat affections: ℞. Chloral hydrate, ʒj; glycerine, ℥j; mix. Apply locally every six hours with a camel's-hair pencil. This has given entire satisfaction in the above-named cases, but, of course, a proper constitutional treatment must be pursued in all cases.

4. In *chronic pharyngitis*, where the blood-vessels of the pharynx are enlarged and tortuous, and the secretion moderate, Dabney reports excellent results from the following: Ergotine, 20 gr.; tincture of iodine, ʒj; and glycerine, ℥j. *Signa*, apply freely to the pharynx twice daily with a camel's-hair brush.

6. After a description of the various methods of *removing tumors springing from the base of the skull and projecting into the naso-pharyngeal space*, Gussenbauer gives the details of his procedure on a woman, aged thirty-seven. After narcosis, the muco-periosteal covering of the hard palate was divided in the median line throughout its whole extent, and dissected back to the alveolar processes. The processus palatini and the bony palate were then removed by means of the hammer and chisel to such an extent that the piece taken away measured 4 cm. by 2·5 cm. The tumor, a fibroma of the size of a walnut, vascular and richly cellular, which had given rise to profuse hæmorrhage, was then cut from its base with the scissors—the base first compressed with the finger, then cauterized with the thermo-cautery. Finally, the soft parts were brought together in the usual manner. The patient did well, and was discharged cured on the sixth day.

7. No condensed abstract can give a proper idea of the value of Dr. Knight's paper upon *retro-pharyngeal sarcoma*, rich as it is in its bibliography. Those interested in the subject may consult the original with confidence.

10. When the gargle is designed to reach the naso-pharynx, Löwenberg recommends the following method: The patient inclines the head horizontally backward and performs movements which we may call "quasi-deglutition," not including the last portion of this physiological action, definite swallowing. The liquid is passed much higher behind the soft palate than the ordinary method of gargling will permit. Some persons succeed so well in this manœuvre that they are able to reject by the nose the liquid which has been received by the mouth. Moreover, these rapid muscular contractions completely detach the abnormal secretions, which can then be easily expelled, and the greatest possible relief is thus given to the patient.

14. *Asthma from Reflex Pharyngeal Causes.*—Among many causes of bronchial asthma, reflex irritation seems to play an important *rôle*. In not a few cases the phenomena attending the disease can not be explained by any theory of local lesion within the lower respiratory tract—the cause is from without. The following case affirms this:

A merchant, aged forty, asked advice on account of obstruction in the superior pharynx. For several years he had had asthma more or less constantly, and had exhausted all the ordinary measures for relief. The inhalation of compressed air had also been administered by a most experienced physician. The paroxysms gradually became more violent as the pharyngeal condition progressed. On examination of the chest only slight emphysema was found, and an occasional coarse mucous *râle* heard, equally on both sides. In the pharynx the whole of the vault was filled with a gelatinous mass—small polypi closely crowded together. A probe was introduced, and, so soon as this mass was touched, the patient had severe dyspnœa, lasting several minutes. Removal of the polypi was the course advised, with the hope that subsequently the asthma might be relieved by proper treatment. As soon, however, as part of the polypi was removed—which was done with difficulty, owing to the recurrence of the paroxysms of dyspnœa—a diminution of the bronchial symptoms was evident. A few days after the last polypus was removed the patient was free from asthma. Two months later there was a slight return of the old trouble. Several small polypi, which had recently formed, were removed, and the pedicle of each was touched with chromic acid. Since then, eight months, this patient has been free from asthma.

It will be noticed in this case that the bronchial irritation progressed *pari passû* with the growth of the polypi; that removal of the polypi relieved the asthma, which reappeared when new polypi formed, and disappeared entirely when the neoplasm was finally destroyed. It was not thought, in the first instance, that the asthma was wholly due to the presence of the polypi, as now seems evident. The impression made upon the nerves of the pharyngeal plexus was doubtless transmitted directly to the pneumogastric through the ganglion of the trunk. It has been proved that respiration may be impeded through irritation of the pneumogastric nerves, causing approximation of the cartilaginous rings of the bronchi (Bert and Traube), and in this instance the source of the irritation was in the pharynx.

Another case, in some respects similar: A gentleman, aged thirty-seven, who had suffered from severe attacks of bronchial asthma for at least a year, was found to have a greatly enlarged and painful tonsil. He also complained of pain, more or less constant, in the region of the trapezius muscle. Remembering the above case, as well as acting from general principles, Porter advised and effected removal of the diseased tonsil, where, deeply imbedded in the portion excised, was discovered a hard calculus, one centimetre in its greatest diameter, and very rough. The patient had several slight paroxysms of asthma during the healing of the pharyngeal wound, but since then—three months—has had no return. The pain in the shoulder has also disappeared. Referring again to the nerve-distribution, we find the tonsillar branch of the glosso-pharyngeal nerve directly connected with the pharyngeal plexus, through which, as stated, the pneumogastric may be influenced. The pain in the trapezius muscle was probably due to irritation of the spinal accessory nerve. This, by the way, is not infrequent in cases of chronic pharyngitis.

15. *Tonsillotomy.*—In operations upon infants St. Germain decries every form of tonsillotome, and strongly recommends the forceps and bistoury. During the eight days previous to operation he causes lemon-juice to be frequently applied to the enlarged tonsil, which produces depletion and shrinkage of it. A wooden gag is inserted between the jaws on the side opposite to that to be operated upon, and the tonsil seized by the forceps, the blades of which should not be serrated. The tonsil is then excised with a blunt-pointed, curved bistoury, cutting from below upward. In case both tonsils must be removed, he advises that an interval of a week be allowed between the operations, the remaining tonsil meanwhile to be treated with lemon-juice as before mentioned. To arrest hæmorrhage, cracked ice should be swallowed, and the ice-bag applied to the throat. The author advises against tonsillotomy in girls at the age of puberty for two reasons. First, on account of the liability of hæmorrhage. Second, because at this time enlarged tonsils are likely to diminish in size without special treatment.

17. Ziem presented two cases of *rare affections of the velum*—taken from the practice of Leube and Mirano—and makes them the text for certain observations and deductions.

In the first, a woman, aged sixty-two, had suffered from bilateral facial cramps for four months, affecting all the muscles supplied by the facial nerve. During the height of her seizures she gave a peculiar hissing cry, which could be imitated when one elevated the uvula and velum, and at the same time expired through the mouth. The conclusion reached was that during the attack of facial cramp the muscles of the velum were likewise affected, and an examination showed that during the seizures the relaxed velum was suddenly and spasmodically contracted, and the uvula so shrunken up as to disappear. The case is interesting as showing the relations of facial cramp with like conditions of the velum, through the influence of the palatine connections of the facial nerve.

In the second case, if the anterior nasal openings were compressed and closed by the pressure of the fingers, the mouth being open, an irregularly frequent (30 to 60 times a minute) noise was produced, similar to a smack of the tongue. The same noise was produced when the nares were occluded by secretion, but not when they were artificially closed, or were irritated by a sound. Inspection of the pharynx at the moment of the emission of the sound showed that, when the nasal openings were closed, the soft palate was raised so that the naso-pharyngeal cavity was cut off, but in the next moment was irregularly thrown open—hence the noise.

NARES.

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12. Rumbold.—Chronic Nasal Catarrh. "St. Louis Med. and Surg. Jour.," October, 1879.
13. Schramm.—On the Examination and Treatment of Certain Affections of the Nose and Naso-Pharyngeal Space. "Jahrb. der Gesellsch. für Nat. und Heilk. in Dresden," 74–78, 1878–'79.
14. Steinbrügge.—The Histology of the Inferior Turbinated Bones and of the Teleangiectatic Fibromata arising from them. "Archives of Otology," N. Y., October, 1879. See "Monatssch. für Ohrenheilk.," No. 10.

15. Wilson.—Yerba Santa; Observations upon its Therapeutic Value in the Treatment of Catarrhal Affections of the Upper Air-Passages. "Phila. Med. and Surg. Rep.," November 1, 1879.

1. *Nasal Catarrh.*—For nasal catarrh Blackwood recommends cleansing the parts twice daily by means of the nasal douche with a solution of common salt in water, alternating with one of potassium biborate, and adding a few grains of potass. permanganate when fetor is great. The liquor sodæ chlorinatæ replaces the potass. permanganate in delicate blondes. Half an ounce to one ounce of the distilled extract of witch-hazel is frequently efficacious, also the simple or the compound tincture of benzoin. After preparing the parts as above in cases of long standing, a number of astringent or alterative remedies can be selected. Granulations or adenoid tissue if excessive should be removed by the curette or galvano-cautery. Ulcers and abrasions should be cauterized by strong solutions of nitrate of silver, or by glacial acetic acid, or by tincture of iodine. Loose portions of bone must be carefully detached. After considering attention to general health, the author states "of all therapeutic measures I value none more highly than electricity." Either the galvanic or faradaic current may be necessary—sometimes both. Care must be taken in galvanization, from the proximity of the basilar brain. Under certain conditions the disease is contagious, even when not syphilitic.

2. *Treatment of Ozæna.*—Browne says that he has for a very long time abstained from prescribing carbolic acid as a gargle or nasal douche, not only, however, on account of its danger, but also because of its taste and odor, which are to many persons most objectionable. Permanganate of potass. also, though to be highly recommended on account of efficacy and price, has the disadvantage of staining the skin, as well as all linen with which it comes in contact. This objection does not apply with the same force to Condy's ozonized sea-salt, which is, I believe, simply a mixture of more or less purified common salt with the permanganate; and, in the proportion of a teaspoonful to a tumblerful of warm water, it serves very well the double purposes of a mild antiseptic and of increasing the specific gravity of the irritating fluid used with the ordinary anterior nasal douche. In cases of actual ulceration, with necrosis of the nasal passages, however, something stronger is required; and, in the early part of this year, Mr. Martindale, of 10 New Cavendish Street, London, took great trouble in preparing for me some solutions of thymol, salicylic acid, etc., and on which we jointly experimented.

Commencing with a solution of thymol (five grains in twelve fluid ounces of water, with a little glycerine and rectified spirit—that is, 1 in 1,000, the proportion of Volkmann's solution), we found that it was necessary to dilute it to one fourth of this strength before it could be borne as a nasal douche, and that even then the smarting produced was of a much more stinging character and of much longer duration than that caused by any other remedy in ordinary use and similarly applied. As a gargle, also, even when the mucous membrane was normal, it produced quite an irritant effect. On this account, therefore, we rejected it from further consideration.

We then tried salicylic acid in the following form: Salicylic acid, 2 drachms; rectified spirit, 10 drachms. One fluid drachm of this solution (representing 10 grains of the acid) to half a pint of tepid water—in other words, about 1 in 500—made an agreeable non-irritating and efficient gargle or nasal douche for use with the post-nasal syringe, but did not serve with the ordinary anterior douche, because the specific gravity of the fluid was not sufficiently great. We therefore tried the following: Borax, 3 drachms; salicylic acid, 2 drachms; glycerine, 2½ ounces; water to 3 fluid ounces. One or two drachms of this mixture to the half-pint of water, at 95° F., acted quite efficiently, whether used with the anterior or the post-nasal douche, or as a gargle; and this form has now been used by me for many months. It has the advantage, over and above its antiseptic qualities, of being not only non-irritating, nor obnoxious in taste, but, on the contrary, of being even emollient, and of agreeable flavor.

3. *Ozœna.*—Browne believes that ulceration of the mucous membrane covering the turbinated bones is only found in syphilitic cases, while actual disease of the bones themselves, with thickening, but without loss of tissue of their coverings, may frequently be met with in young persons of strumous diathesis, and with no history of syphilis. In his opinion, too, pharyngitis sicca arises in a large proportion of cases from inspissation, retention, and consequent putrefaction of the normal secretion, the condition being the direct result of a long neglected pharyngeal and post-nasal catarrh. Ozæna is not a coincidence, or a casual connection of the pharyngitis sicca, but a direct result thereof. In regard to the relation of parasites with this affection, they are the result, not the cause. The crusts which form in the nares in these cases should never be removed violently, as, in case hæmorrhage be excited, they will always form again. They should be removed by post-nasal washings, or vapor or spray inhalations, and measures be taken to prevent their formation anew. Of these the best is the following ointment: ℞. Iodoform. gr. v–viij; ether, fl ʒ j–fl ʒ jss. Solve et adde Vaselin. ℥ j; attar rosæ, ♏ v–viij. Three measures are particularly condemned: 1st. Plugging the nostrils. 2d. Employing pure glycerine, because of its powerful attraction for water, which only serves to increase the dryness of the parts. 3d. The use of alum, tannin, or any other astringent, for the same reason. Also, the use of nasal snuffs. Applications of calomel powder to the ulcerated surfaces are also condemned, and, instead, is recommended the internal administration of the iodides, local applications of solid nitrate of silver to the pharyngeal ulcerations, post-nasal douches, and applications of solutions of sulphate of copper to nasal ulcerations, and constant inunction of the nostrils with the vaseline ointment. Nitrate of silver the author never uses in any form of throat disease, except syphilitic ulcerations, and then applied in the solid form to the exact spot. Even in these cases, the galvano-cautery, acid nitrate of mercury, or sulphate of copper is better. For disinfectants, the salicylates, thymol, and sanitas are preferred. General treatment directed to the particular diathesis of the patient is all-important.

4. *The Cure for Nasal Polypi* recommended by Dr. Caro consists in the injection, by means of an hypodermic syringe, into the body of the polypus, of from four to six drops of pure acetic acid. He has tried it in only one case. Two injections effected a cure. The suggestion of its use was derived from Dr. Ceccarini.

5. In the course of a clinical lecture on *Naso-pharyngeal Catarrh,* Cohen tells us that one cause of the detention of mucus in the nasal passages is destruction of the epithelium; and the explanation about to be given applies equally to the entire respiratory tract. You know that mucous membranes are covered by layers of epithelium which are being continually shed and renewed, like the scales of epidermis which remain in the water after a bath. The outer layer of the epithelium of the entire respiratory tract proper, nasal passages, windpipe, and bronchial tubes, with the exception of the upper surface of the vocal cords, is a columnar epithelium, provided with cilia or hair-like processes, continually waving in a direction from the interior to the exterior. The province of these appendages is to brush out, as it were, any dust, mucus, or what not, which may be in the respiratory tract, and thus to get rid of what may be injurious. In the nasal passages these cilia are continually brushing excess of mucus from the interior to the exterior. Now, when the mucous

membrane is diseased, numbers of these ciliated epithelia are destroyed and are not reproduced. Hence the accumulating mucus can not all be brushed out. It clings to the irregular surfaces and undergoes decomposition. The gases of decomposition irritate the mucous membranes still further, and so does the mechanical retention of the masses themselves, and thus the disease is kept up and intensified; and a vicious circle is started which continues its round indefinitely, for the disease is one that is liable to continue for a series of years.

6. *Treatment of Nasal Polypi.*—Since in many cases nasal polypi consist essentially of nothing more than connective tissue infiltrated with serum and covered with mucous membrane, Mr. Harrison suggests that, by freely puncturing them with an acupuncture needle from the anterior nares, the fluid may be drained away, when they will shrivel up and may be prevented from refilling by frequently washing the nares with, for instance, a solution of carbolic acid in glycerine. In short, he considers them as being local and limited œdemas rather than hypertrophies, which when once emptied are curable by astringents.

7. *An Undescribed Lesion as a Cause of Epistaxis.*—Little recommends an inspection of the anterior nares, and especially the septum, before plugging either the anterior or posterior nares to arrest the hæmorrhage of epistaxis. He cites four cases in illustration. In the first, he was called at midnight to see a gentleman whose anterior nares had been plugged, but the hæmorrhage recurred as soon as the plug was removed. Inspection showed an erosion on the septum, about a half inch above the columna, from which all the hæmorrhage came. Touched with muriated tincture of iron, on the point of a camel's-hair brush, the hæmorrhage was at once arrested and did not recur. In the second case the patient had several severe attacks of epistaxis before applying for treatment. Upon examination a small ulcer was found on the septum, about half an inch from the edge of the nostril, near the anterior margin of the cartilage. Upon touching the spot with stick nitrate of silver, the hæmorrhage ceased. A second application was required the following day. No recurrence after this. In the third case he found the patient just recovering from syncope following epistaxis. The anterior nares were plugged, and on the following day he learned that the hæmorrhage had followed the picking of a pimple on the septum. On removing the plug, a spurt of arterial blood followed. A piece of styptic cotton was applied to the spot, and the patient instructed not to disturb it. There was no recurrence, and the ulcer healed in about a week. In the fourth case also, the hæmorrhage followed picking of the nostril, and continued, with slight remissions, from ten o'clock in the morning until four in the afternoon. A small erosion was found on the septum. Nitrate of silver applied to the bleeding spot arrested the hæmorrhage. There was no recurrence.

14. An inferior turbinated bone was taken by Steinbrügge, and, after the necessary preparations, was cut into microscopic sections; he was thus able to secure some satisfactory demonstrations, especially of the sections of the bone, which is composed of a spongy substance, the varied arrangement of which in its different parts precludes any detailed description. Large, bright interspaces are seen in the fine bony trabecular substance, which are filled with fibrous tissue containing pale lymphoid cells. In this fibrous tissue we generally find transverse sections of delicate vessels, longitudinal sections being but seldom found. Traces of an undoubted endothelial lining were visible only in isolated spots. In order to reach the outer surface, the vessels either perforate the bone or lie in recesses separated from the soft parts only by the periosteum. Voltolini first called attention to this vascular development. S. accounts for the vessels otherwise. V. considers them blood-vessels, whereas S., with the exception of a central artery, has seen

but few vessels coursing in the bone, and is more inclined to consider the most of them lymphatics. As far as erectile tissue is concerned, it is well known that the most numerous venous spaces are found at the posterior extremity of the turbinated bones. A few of these are prolonged throughout the continuity of the bone, on the lateral as well as the median side, without, however, again regaining either the number or size which they possessed at their origin. The venous spaces are characterized by the formation of longitudinal processes which project into their walls. The vascular cavities thereby assume the most varied shapes; instead of a round vein we find them kidney- or crescent-shaped. Occasionally they project from only one side, but in other cases they anastomose from different sides of the cavity. Only a few arteries—branches of the posterior nasal artery—traverse the turbinated bones. The glands of the respiratory part of the nasal fossæ are generally considered acinous. In the anterior two thirds of the turbinated bones, the mucous membrane is only a delicate, slightly corrugated covering of the remaining soft parts, while at the posterior end the folds are so thick that transverse sections have cornice-like projections and indentations. These are evidently only present for the purpose of increasing the surface of the mucous membrane whenever a considerable congestion makes it necessary. The periosteum and mucous membrane are united by a fibrous network which passes through the glands and vessels. The dark color it assumes when dyed with carmine in contradistinction to the pale-yellow hue of the connective tissue, as well as its wealth of elastic fibers, justifies the supposition that it is more nearly allied to the periosteum than to the mucous membrane. In accordance with this, Kohlrausch describes the erectile tissue as lying partly in the periosteum and partly in the mucous membrane, whereas other authors say that it is limited to the mucous membrane alone. It would be more correct to consider the glands and erectile tissue apart from the mucous membrane, and to describe them as between the periosteum and mucous membrane, as they constitute the greater part of the soft tissues. (Luschka, Fränkel.) There is no difference of opinion about the epithelium. All authors agree in describing it as of the ciliated variety.

15. Wilson has found the *use of yerba santa* attended with such satisfactory results in a large number of instances that he has come to look upon it as a remedy of great value. In subacute laryngitis the action of the remedy has in a number of instances been extremely prompt. Patients who had suffered from previous attacks have testified enthusiastically to its efficiency. The relief of the sense of dryness in the throat, the tickling, the irritative cough, has been speedy, and the further use of the drug has speedily brought about the full restoration of the voice. Its action upon the laryngeal and bronchial-mucous membrane suggests its employment in some of the forms of nasal catarrh. I have not had the opportunity to verify the claims set forth for it in the treatment of these affections. In acute inflammations of the air-passages, such as are attended by pyrexia and by a good deal of constitutional disturbance, yerba santa is not indicated.

TRACHEA.

1. FIDELE.—Two Cases of Death from Secondary Hæmorrhage after Tracheotomy. "Centralbl. für med. Wissensch.," No. 34, 1879.
2. FÜRST.—Death caused by an Ascaris Lumbricoides in the Upper Air-passages. "Wiener med. Wochensch.," "Brit. Med. Jour.," September 27, 1879.
3. PETEL.—On Polypi of the Trachea following the Closure of a Tracheotomy Wound, and necessitating a New Operation. "Thèse de Paris," November 1, 1879.

1. *Secondary Hæmorrhage after Tracheotomy.*—In both cases a tracheotomy was performed for asphyxia in croup, the opening being made just below the cricoid and above the thyroid gland. Nothing noteworthy occurred during their course, bleeding being checked easily by compression. In both instances the isthmus of the thyroid was cut to an extent of one and a half to two centimetres, and in the first case, besides, a large anastomosis between the external jugular veins. In the first case, hæmorrhage occurred on the second day, in the second, on the fourth day after the operation—in both instances so profusely that the children died within a few moments.

2. *Death caused by an Ascaris Lumbricoides in the Upper Air-passages.*—Dr. Fürst has published a summary of twenty-four cases of immigration of ascarides into the upper air-passages, from which we quote the following case: A girl, aged four, had been received into Professor Billroth's hospital for congenital ectopy of the bladder. One evening, she suddenly had an attack of suffocation. Thinking that she must have aspirated some foreign body, the author explored the larynx without any result, and then performed tracheotomy, as she had suddenly ceased to breathe. As no canula was at hand, a male catheter was introduced into the wound, but met with some obstacle. It was drawn out and then pushed in again, when it went in quite smoothly. Artificial respiration was then resorted to, but the child died. Two hours after death, a living female ascaris, about nine tenths of an inch long, was seen hanging out of the nostril. It is evident that the catheter had been prevented from penetrating into the trachea by the worm, which probably then changed its position and wandered upward. The post-mortem examination revealed a male ascaris lumbricoides, nearly half an inch long, in the jejunum. The author gives the following clinical sketch of the *modus operandi* of the immigration of ascarides into the air-passages: As far as concerns the etiology, vomiting, fever (as a high temperature always quickens considerably the movements of the ascarides), purgatives, abstinence from food—may all be looked upon as favoring the immigration into the larynx. Children are more liable to it than adults. The symptoms are not always the same; sometimes the worm sticks in the glottis, and such cases of course invariably end fatally within a very short time. At other times, the worm passes the rima glottidis, when the patient dies of bronchitis in the course of a few days. The majority of the cases that have hitherto come under observation belong to the first class. The patients become aphonic and asphyctic; occasionally these symptoms are preceded by hoarseness during a few moments. Then comes a stage of great excitement, anxiety, and profuse sweating, which is followed by loss of consciousness. In cases of the second class, the patients feel much better after the worm has passed through the rima glottidis; but they do not recover their voice, and complain of pain in the anterior part of the throat. The diagnosis is very difficult and uncertain. In young children, the fits of suffocation are often completely masked by convulsions. If laryngitis, croup, diphtheria, spasm and œdema of the glottis, perforation of cold abscesses, or affections of the lungs may be with certainty excluded, one is justified in supposing that a foreign body has penetrated into the pharynx or larynx. Then if it can be proved with certainty that no foreign body has been aspirated, and, moreover, if the patients are troubled with ascarides, it may be concluded that the foreign body in the trachea is an ascaris. This supposition will be rendered still more plausible if, after the worm has passed beyond the glottis, the asphyxia decreases and the trachea becomes painful. If it be not possible to extract the worm, either with the hand or by emetics and expectorants, tracheotomy must be performed. It has been resorted to in three cases out of the twenty-five,

but each time with fatal issue. At the necropsy, the worm is generally found in the place where it evidently resided, judging by the symptoms, during the patient's life. These places generally bear marks of inflammation, which have been produced either by the mere presence of a foreign body, or by its movements, or else by its peculiar irritating properties. The mucous membrane is red and injected, covered with bloody froth, and in some places eroded. Pneumonia of a circumscribed portion of the lung is sometimes caused by the protracted presence of the worm in one of the bronchi. The inflammatory symptoms are manifested principally in the arytenoid cartilages, as they are much affected by the migrations of the worm from the œsophagus. The usual symptoms of death by asphyxia are also always met with, as well as a certain number of ascarides in the intestines.

Worms in the Nasal Cavity expelled by Means of Chloroform.—A woman, twenty-nine years of age, was attacked by variola in the ninth month of pregnancy; normal accouchement occurred on the second day of the eruption, the disease following its regular course. During the period of desquamation. a fly entered the nasal cavity and deposited there its eggs, which were soon transformed into larvæ. Fever, violent cephalalgia, and multiplication of the larvæ followed. Insufflations of calomel and injections of salt water were useless. Dr. Garuco then had recourse to inhalations of chloroform, and, at the first trial, seventy larvæ were expelled. This treatment was repeated every day, and completely relieved the patient. Experiments with some of the larvæ showed that, at first, chloroform caused very active movements, after which all movements ceased and complete inertia ensued.—"Gaz. Med. Ital.," and "La France Médicale," August 23, 1879.

MISCELLANEOUS.

1. **Annandale.**—On the Value of the Dependent Position of the Head in Operations on the Mouth and Throat. "Lancet," November 8, 1879.
2. **Chervin.** — On Stammering. "Month. Abst. Med. Sci.," January, 1879.
3. **Durant.**—Hygiene of the Voice. New York, 1879.
4. **Goolden.**—On the Direct Application of Oxygen to Ulcerating Surfaces (Pharynx, etc.). "Lancet," October 25, 1879.
5. **Gosselin.**—Treatment of a Case of Suffocative Goitre by Parenchymatous Injections of Tincture of Iodine. "Gaz. des Hôp.," No. 127, 1879.
6. **Guinier.**—Notes on Deglutition and on Gargling, based upon Recent Experimental Researches made with the Aid of the Laryngoscope. "J. Soc. de Méd. et de Pharm. de la Haute Vienne." 1878–9, iii., 197–199.
7. **Guiraud.**—Tracheo-bronchial Adenopathy. International Med. Congress at Amsterdam, 1879.
8. **Holmes.**—A Treatise on Vocal Physiology and Hygiene. "Lancet," November 1, 1879.
9. **Manasseïn.**—Influence of Singing upon Health. "Brit. Med. Jour.," August 23, 1879.

2. *On Stammering.*—At the recent International Medical Congress held at Amsterdam, M. Chervin, of Paris, read a paper on stammering. This disturbance of speech is generally ascribed to a spasm of the muscular apparatus that aids in the articulation of sounds. This theory, which is essentially false, has led surgeons to perform many unfortunate and useless operations (section of the tongue or of certain of its muscles, of the hyo-

glossus, extirpation of the tonsils, the uvula, etc.). M. Chervin thinks that stammering is caused simply by a disturbance in the coördination of the movements that are necessary to emit an articulated sound. This explains how it is that this disturbance of speech is frequently of an intermittent type; and why, under the influence of a methodical treatment, which is in reality only a series of gymnastic exercises, that are practiced by the apparatus which helps to form articulate sounds, it is possible to cure this affection in a very short time.

4. *Direct Application of Oxygen to Ulcerating Surfaces* (*Pharynx*).—A patient was admitted into St. Thomas's Hospital, who was suffering from phagedenic ulceration of the throat. It was progressing with great rapidity, and in a very few days had destroyed the uvula and the greater portion of the soft palate. There was no reason to believe that it was the result of syphilis, except the general opinion that that form of ulceration is one of the subsequent stages of the specific disease. There was no secondary eruption, and she denied that she had ever had or been treated for it; but I hazard no opinion on that subject, as it is difficult to rely upon any statement of a hospital patient in such a case. What was left of the palate was of a bright crimson color, with elevated edges, discharging some dirty cream-like matter; the breath was very offensive, and she could neither speak intelligibly nor swallow liquid, which regurgitated through the nose.

The usual treatment in such cases is, I believe, the inhalation of the fumes of oxide of mercury given off from hot iron. Now, it had often struck me that there must be some reason why such mercurial fumes should be so generally efficacious, while at the same time all forms of mercury taken into the stomach or through the skin are known to aggravate the process—also, that it is necessary to heat the iron upon which the oxide of mercury is thrown to a very high temperature to get any fumes at all, and even that protoxide of mercury, the black powder, when heated to an ordinary red heat and exposed to the atmosphere, absorbs oxygen and becomes peroxide, yielding no fumes; but, when raised to a white heat or to the boiling point of mercury, it dissipates and gives off a white smoke. Now, it is clear that no patient could inhale anything at so high a temperature, and that it must necessarily be allowed somewhat to cool before it could be attempted. This is what virtually occurs to the inhaler: the mercury is given off in a vapor with its oxygen, but they are decomposed. The mercurial fumes do not rise with the oxygen, but fall as crude mercury as soon as the boiling-point is not sustained, and fall back as crude mercury, or partly as oxide, while the free oxygen pursues its way through the inhaling tube and is inspired. Under this idea I made the patient inhale pure oxygen, made in the laboratory in the usual way, from peroxide of manganese and chlorate of potassa, with the satisfactory result of arresting the destructive process. Though the greater part of the soft palate and uvula no longer existed, and speech was unintelligible, and fluid passed through the nose instead of downward, that which was left soon assumed a healthy character and healed, and within two weeks some part of the palate was operated on, and a metallic plate supplied, and she was discharged in as satisfactory a condition, both as to swallowing and speaking, as could be hoped for after the destruction of the parts to so large an extent.

8. The author of this book states that his aim in writing it has been to furnish singers and speakers with a concise and complete account of the scientific relations of the voice, physical and medical. A remarkably broad field has certainly been gone over in the compass of his three hundred and seventy pages. The author begins with the origin of language, and from this trips lightly through ages prehistoric, classical and mediæval, bringing

us in one chapter to the subject of modern acoustics. This necessarily involves much conciseness, and it may be questioned whether such an historical review is of much value. Under the head of Sound and Voice, the elementary principles of sound are given in a very satisfactory manner. The larynx is considered, as is usual, to be a reed instrument, and its anatomy and physiology are described. A chapter on the physiological principles of vocal culture and one upon the hygiene of the voice complete the work. To the physician this book will furnish some interesting physiological points on the subject of the production of the voice in its different registers. The descriptions are much more clear and satisfactory than in ordinary books of physiology. The subject of stammering is also very well discussed. The practical part of the remainder of the work will only have novelty for the laity, for whom it is intended.

9. *Influence of Singing upon Health.*—Professor Manasseïn, of St. Petersburg, has published the result of a most interesting inquiry in which he has been engaged. He has made an examination of two hundred and twenty-two singers, varying in age from nine to fifty-three years, with particular reference to their chest measurement and pulmonary condition, as compared with persons who are not singers. He finds that the size of the chest is greater among singers than other classes, and that the relative advantage increases with the age of the vocalists. Among singers who drink, he is convinced the habit prevents the due development of the chest. The vital capacity of the lungs is also greater in vocalists than in other persons. Singers often suffer from soreness of the top of the throat, but seldom from bronchial catarrh; and the mortality from phthisis among them is, therefore, small. Vocalists, both drinkers and non-drinkers, are, however, more subject to Bright's disease than people who do not sing. Singing is an excellent prophylactic for incipient consumption; and as a means for the development and strengthening of the chest is more efficacious than gymnastic exercises.

FOREIGN BODIES.

1. BRAMWELL. — On Foreign Bodies in the Air-passages, with Cases. "Edinburgh Med. Jour.," September, 1879.
2. CHEEVER.—Foreign Body removed from the Larynx by Laryngo-tracheotomy. "Boston Med. and Surg. Jour.," vol. i., p. 596. 1879.
3. INGALS.—Fish Bone in the Larynx for Eight Months. "Chicago Med. Jour. and Ex.," November, 1879.
4. OPPENHEIMER.—A Case of Foreign Body in the Larynx. "N. Y. Med. Jour.," October, 1879.
5. SHIVELY.—A Case of Foreign Body in the Windpipe. "New Orleans Med. and Surg. Jour.," No. 5, vol. vii., 1879.
6. SMYTH.—Foreign Body in the Bronchus. "Lancet," November 1, 1879.
7. YOUNG.—Foreign Body in the Right Bronchus; Expulsion on the One Hundred and Second Day. "Lancet," October 18, 1879.
8. ———.—Almond Shell in a Bronchus. "All. med. Central Zeitung," No. 54, 1879.

1. Bramwell quotes Brodie and Gross to support his claim that tracheotomy is indispensable as a preliminary measure in these cases, obstructive laryngeal spasm being thus entirely averted. He then recommends the well-known plan of inverting the patient and striking him smartly on the back. Failing in this, the foreign body should be removed if possible by a properly constructed forceps. Three cases are cited. 1. Plum stone in right bronchus of girl of eight. 2. Piece of apple in larynx of infant of one. 3. Horse bean in right bronchus of girl of seven. Tracheotomy, removal of body, and complete recovery in all three cases.

2. An oval piece of tin three fourths by five eighths of an inch in diameter became lodged in the throat of a child of three and a half years. Digital examination failed to discover it. Tracheotomy was performed, and the body was found in the larynx, but so impacted that it could not be drawn down or moved. The whole larynx was then laid open in the median line, the tin found in the glottis, and removed. Sixteen days after the operation the child spoke with a shrill, doll-like voice. [It would seem that a properly conducted exploration of the pharynx must have demonstrated the location of so large a foreign body and permitted its removal by the mouth.—Reporter.]

3. Two remarkable circumstances may be noted in this case: first, that the patient had no knowledge of having swallowed a bone, and, second, that although he was under observation for a period of eight months, during which time the laryngoscope was used, the presence of the bone was not demonstrated. It proved to be an inch and a quarter long, and had been lodged in the right pharyngo-laryngeal sinus.

4. In Dr. Oppenheimer's very interesting case, a partial set of false teeth, forming an irregular triangle with a base of over two inches, became firmly impacted in the larynx, the greater part being below the vocal cords. It was removed with difficulty by means of Mackenzie's antero-posterior forceps. Recovery.

5. Grain of corn in trachea of infant fifteen months old. Tracheotomy. Recovery.

6. A chip of wood about three fifths of an inch in diameter expelled from the right bronchus, upon the bursting of an abscess, after retention for fifteen months.

7. Dr. Young, of Monmouth, Illinois, reports an interesting case in which a glass bead, three fourths of an inch long and having a cutting edge, lodged in the right bronchus of a child of five. Tracheotomy failed to relieve. Two severe hæmorrhages from the lung occurred four days after the accident, and one hundred and two days afterward the bead was expelled during a paroxysm of coughing, the child's body being inverted at the time.

8. A piece of almond-shell nine tenths by one third of an inch in size was coughed up from the bronchus about four months after having lodged there, causing meanwhile a severe attack of pleuro-pneumonia. Recovery rapid after expulsion.

Note.—In the preparation of this report, valuable assistance has been rendered by Dr. D. Bryson Delavan.

Miscellany.

A New Journal.—We have received the first number of the "Chicago Medical Gazette," edited and published by E. C. Dudley, M. D. The journal is a double-columned semi-monthly of twenty-four pages. It contains much interesting matter, and makes a creditable appearance.

Gaillard's Medical Journal.—With the November number, the "Richmond and Louisville Medical Journal," edited by E. S. Gaillard, M. D., made its home in New York, and changed its name to "Gaillard's Medical Journal." The rose smells as sweet by the new name as it did before.

At a meeting of the Committee of Arrangements of the American Medical Association, held in this city December 3, 1879, the following committees were appointed:—Committee on Buildings: Drs. M. A. Pallen, M. H. Burton, W. M. Polk; Reception Committee: Drs. Jos. C. Hutchison, W. M. Polk, M. A. Pallen; Committee on Finance: Drs. Stephen Smith, A. A. Smith, W. R. Gillette, R. F. Weir, M. H. Burton, E. H. Parker; Committee on Business: Drs. M. A. Pallen, Jos. C. Hutchison, Stephen Smith; Committee on Invitations: Drs. W. M. Polk, R. F. Weir, E. H. Parker; Committee on Entertainment: Drs. C. I. Pardee, M. A. Pallen, R. F. Weir; Committee on Printing: Drs. R. F. Weir, Stephen Smith, W. R. Gillette. At the request of the Committee of Arrangements, we call the attention of our contemporaries to this action.

At a meeting of the Medical Board of the Presbyterian Hospital, held November 12, 1879, Drs. Wm. Detmold, Jared Linsly, and Gouverneur M. Smith were appointed a Committee to prepare resolutions in relation to the decease of Dr. Oliver White. Which resolutions we hereby respectfully submit:

Whereas, Dr. Oliver White, an earnest friend of the Presbyterian Hospital from its incipiency, and for a number of years President of the Medical Board, has been removed by death.

Resolved, That the Medical Board desires to express and to place on record its warm appreciation of the loss the hospital has sustained by this bereavement.

Resolved, That Dr. White during the inception of the hospital, and before it was erected, interested himself in promoting the success of the benevolent enterprise, and engaging both the influence and means of a number of the medical profession in promoting the humane purpose of the institution.

Resolved, That Dr. White, to the close of life, was unrelaxing in his interest in the hospital, and, when smitten with disease, persisted in performing his duties until overwhelmed by his malady.

Resolved, That as Consulting Physician and as President of the Medical Board his counsels were wise, being governed by intellectual vigor and Christian principle, and that the successful career of the hospital has been due in no small measure to his watchfulness and guidance.

Resolved, That a copy of the above preamble and resolutions be sent to the family of the deceased, to the Board of Managers of the hospital, be entered on the minutes of the Medical Board, and be published in the medical journals.

S. T. Hubbard,
Chairman of Meeting of Medical Board,
Presbyterian Hospital.

James V. S. Woolley,
Secretary of Medical Board.

The Yellow Fever Commission.—The Commission appointed by the President, under the direction of the National Health Board, to investigate yellow fever at Cuba, has made a preliminary report. This contains a large amount of information about the sanitary condition of Cuban cities, as well as a history of yellow fever as it has existed in those places. The Commission was unable to inoculate lower animals with yellow fever, and hence it could not study its pathology as fully as had been hoped. One heretofore unnoticed pathological change was noted. It consisted in a fatty degeneration of the white blood-corpuscles. This was found to be a constant pathological feature. A large number of microscopic specimens were brought home.

Mount Sinai Hospital.—This hospital has recently received several large donations of money; among them one of $25,000, from Mr. M. Ries, of California.

Army Intelligence.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from November 14 to December 13, 1879.*—Keeney, C. C., Lieutenant Colonel and Surgeon.—Relieved from duty at the Presidio of San Francisco, and assigned to duty in San Francisco, Cal. S. O. 142, Division of the Pacific and Department of California, November 15, 1879.——Brown, H. E., Captain and Assistant Surgeon.—When relieved by Assistant Surgeon Middleton, to report to the Commanding Officer, Fort Duncan, Texas, as Post Surgeon. S. O. 252, C. S., Department of Texas.——Cleary, P. J. A., Captain and Assistant Surgeon.—To report in person to the Commanding General, Department of the East, for assignment to duty. S. O. 271, A. G. O., December 2, 1879.——Middleton, P., Captain and Assistant Surgeon.—Assigned to duty as Post-Surgeon at Post of San Antonio, Texas, and to relieve Assistant Surgeon M. K. Taylor as Attending Surgeon at Department Headquarters. S. O. 252, Department of Texas, November 29, 1879.——Kimball, J. P., Captain and Assistant Surgeon.—When relieved from duty at White River, Colorado, to proceed to Fort Sanders, Wyoming Territory, and resume his duties as Post Surgeon. S. O. 111, Department of the Platte, December 6, 1879.——De Witt, C., Captain and Assistant Surgeon.—To resume his duties as Post Surgeon, Fort Sidney, Nebraska. S. O. 111, C. S., Department of the Platte.——Carvallo, C., Captain and Assistant Surgeon.—To accompany troops ordered from Rawlins to Fort Laramie, Wyoming Territory, and there take post. S. O. 109, Department of the Platte, November 29, 1879.——Elbrey, F. W., Captain and Assistant Surgeon.—Assigned to duty at Fort Bayard, New Mexico. S. O. 238, Department of the Missouri, November 28, 1879.——Hoff, J. V. R., Captain and Assistant Surgeon.—Granted leave of absence for one month, with permission to apply for an extension of two months. S. O. 270, A. G. O., December 1, 1879.——Comegys, E. T., First Lieutenant and Assistant Surgeon.—When relieved by Assistant Surgeon Brown, to report as Post Surgeon to the Commanding Officer, Post of San Diego, Texas. S. O. 252, C. S., Department of Texas.——Smith, R. E., First Lieutenant and Assistant Surgeon.—Granted leave of absence for four months, from December 1, 1879. S. O. 250, A. G. O., November 15, 1879.——Smith, R. E., First Lieutenant and Assistant Surgeon.—His resignation accepted by the President, to take effect April 1, 1880. S. O., 271, C. S., A. G. O.

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Obituary.

Freeman J. Bumstead, M. D., LL. D.—It is with profound regret that we find ourselves called upon to record the loss during the past month of one of the most prominent and valued members of the medical profession in our city—Dr. Freeman J. Bumstead.

Dr. Bumstead was born in Boston, Mass., in 1826. He was graduated at Williams College in 1847, and received the degree of Doctor in Medicine from Harvard University in

1851. He commenced the general practice of medicine in New York city in 1852. Dr. Bumstead was a man of fine intellectual attainments, and devoted his life with untiring industry to the study and practice of his profession, finally achieving a reputation at home and abroad alike honorable to himself, his profession, and his country. In the earlier days of his labor he gave especial attention to ophthalmology, for several years occupying a position as one of the visiting surgeons of the New York Eye and Ear Infirmary, and was recognized as an expert in that branch of medical science. Subsequently he turned his attention to the department of venereal diseases. He served as visiting surgeon to Charity Hospital, in the venereal section, for several years, and was subsequently appointed Consulting Surgeon. In 1857 he translated into English, and edited, Ricord's famous treatise on venereal diseases, and in 1861 he published the first edition of his own "Pathology and Treatment of Venereal Diseases"—a most admirable digest of all that was then of known value in the literature of the subject. This work was cordially received by the medical profession at home and abroad, and from this time Dr. Bumstead was an accepted and valued authority in this department up to the time of his death. In 1867 he translated M. Cullerrier's work on venereal diseases, adding to it valuable editorial notes. In 1868 he was appointed Clinical Professor of Venereal Diseases in the College of Physicians and Surgeons, New York, where he taught most acceptably up to 1871, when, in view of an intended sojourn abroad of several years, he resigned his professorship. He sailed for Europe soon after, where he spent a little more than two years in travel and study. Nominally seeking rest and recreation, he was soon found at work gathering experience and material in the capitals of the Old World for advancement in his specialty. A second edition of his work had already been published (in 1864), and a third in 1870.

On his return from Europe in 1873, he began to arrange his new and most valuable material for publication. This, in the intervals of a laborious practice, he kept steadily in hand, often devoting the hours which should have been given to recreation or sleep to revisions of and additions to the work which, as he expressed it, he wished "to leave as a monument of his life"; for even now he had begun to realize that its tenure was uncertain. With this ambition to utilize his great experience and knowledge in the department of venereal diseases for the benefit of his profession, and thus for his kind, and with a courage which even the near prospect of death could not daunt, he spent many of the closing hours of his life in preparing the fourth and last edition of his book. He had the satisfaction, a few days before his death, of seeing it in a noble volume, fully up to his thought, and he has left it to us a complete compendium of the knowledge which he had acquired in a lifetime of honest and intelligent practice, and in an appreciative acquaintance with the entire field of the literature of this department of medical science.

Dr. Bumstead was a ripe scholar, not alone in the department which engaged his professional labors, but in botanical science he was an accomplished and enthusiastic student. The practical results of his labors in this field will entitle him to an honorable place among scientific botanists. Dr. Bumstead was also a lover and student of ornithology, and in this line also he has left valuable records and collections. He possessed the rare talent of method in all that he did, and was a striking example of the earnest professional worker, who yet finds time to cultivate tastes and pursuits in other departments of science. Dr. Bumstead, with his scholarly tastes, was also a genial companion. Retiring in manner from a true modesty of character, he was also sensitive and affectionate. Honorable in all things, he was a firm and consistent friend, who has left those who knew him best to mourn him most. *Requiescat in pace.*

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Original Communications.

ON CERTAIN DISEASES OF THE LIVER (*Continued*): AMYLOID DEGENERATION; CARCINOMA; HYDATIDS; HEPATIC ANEURISM; PORTAL THROMBOSIS; SUPPURATIVE PYLEPHLEBITIS; CATARRH OF THE BILE-DUCTS; OCCLUSION OF THE BILIARY PASSAGES; AND BILIARY CALCULI.

BY ROBERTS BARTHOLOW, M. D.,
PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS IN THE JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

[*From Professor Bartholow's forthcoming Treatise on the Practice of Medicine, now in press.*]

AMYLOID LIVER.

Definition.—By this term is meant a degeneration of the liver caused by the deposit of an albuminoid material, termed *amyloid*, because of a superficial resemblance to starch-granules. This disease is also called "waxy liver," and "lardaceous liver," in recognition of the peculiar physical condition of the organ.

Causes.—The chief cause of amyloid degeneration of any organ is prolonged suppuration, especially in connection with diseased bone, and the morbid process is then general, the liver suffering in common with other organs. A variety of explanations have been offered to account for the production and deposit of this amyloid matter. The theory of Dr. Dickinson, which assumes that this matter is a form of fibrine, altered by the loss of its alkali which in the normal state is intimately associated with it, is the most plausible. According to this theory, long-continued suppuration gradually removes in the pus the alkali from the fibrine, which is then deposited in various organs in the form of the amyloid matter. How this dissociation of alkali and fibrine is effected, is not explained. Although the explanatory theories are inadequate, the fact of the relation between suppuration and amyloid deposit is not disputed. The suppuration of tubercular cavities, of scrofulous abscesses, of intestinal and leg ulcers, etc., may also, although less frequently, be a cause of this degeneration.

Next to suppuration, the most influential factor is chronic syphilitic infection, and then chronic malarial poisoning. The abuse of mercury is an alleged cause which Frerichs disposes of satisfactorily. This morbid state occurs more frequently in men than in women, and attacks by preference the most active period of life—from twenty to forty years of age.

Pathological Anatomy.—The liver presents a very characteristic appearance: it is uniformly enlarged without alteration of the form and relation of its parts, and sometimes its dimensions are enormous. It presents to the naked eye a pale grayish, glistening, opaline, translucent appearance, and to the touch a doughy consistence. On section the surface is homogeneous, and resists the knife almost like cartilage, and is anæmic and whitish; and when the disease is far advanced no trace remains of the proper structure of the organ.* There may be parts only, or the whole organ, affected by the change. The deposits may be in patches, small or large, and restricted to parts of the organ, or be uniformly distributed through it, and may be so limited in amount as not to increase its size (Frerichs).* Cirrhotic or fatty degeneration may coexist with the lardaceous, when, of course, the appearances will correspond. The reaction with iodine and sulphuric acid affords a striking test of the amyloid deposits. The parts to be examined must be carefully cleansed, and a solution of iodine with iodide of potassium in water, or diluted tincture of iodine, brushed over, when they assume a mahogany color, quite different from the yellow color of the healthy tissue. This reaction may be sufficiently characteristic of itself, but, if to the iodized surface is now added some diluted sulphuric acid, the affected parts, after some minutes or hours, take on a violet tint, more rarely bluish. The violet may be very deep, almost black. Orth † advises that a large and thin section be laid in a saucer of water containing some iodine, and, when the changes are complete, placed on a white plate. The reaction will be very distinct.

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* Wagner, "Manual of General Pathology." P. 322. New York: William Wood & Company. 1876.

Microscopically, the structural alterations affect first the arterioles and capillaries; their diameter is increased, the lumen narrowed, even closed; the intima, the endothelium, and the muscular coat, more rarely the adventitia, are invaded by the deposits. The cells become cloudy, granular, then clear, bright, and homogeneous, and the nuclei disappear. When the process is completed, the cell is transparent, glistening, and brittle, easily breaking up into small fragments.‡

The amyloid change is not confined to the liver, but involves the spleen, the kidneys, the lymphatic glands, the intestinal mucous membrane, and other organs. Those portions of the liver remaining unaffected by this morbid deposit are in a state of congestion, and are softer; or parts of the organ are attacked with fatty or cirrhotic degeneration, or syphilitic gummata may be mixed up with the amyloid deposits.

Symptoms.—There are probably no exceptions to the statement that amyloid degeneration occurs in subjects already in a cachectic state by the existence of one or more of the causes already mentioned. The symptomatology is necessarily that of the malady with which this degeneration is associated, up to the time of the development of those signs by which the disease of the liver is recognized. The liver is usually enlarged, and often considerably so, extending several fingerbreadths below the margin of the false ribs. The organ is smooth, firm to the touch, almost of stony hardness, it may be; its borders well defined, free from pain or tenderness, unless there is present local peritonitis. This increase of size has gone on without any local uneasiness to call attention to the organ. The spleen is also enlarged, and is firm in texture, as a rule, but the waxy degeneration does not always affect it when enlarged in the course of amyloid liver. Jaundice is exceptional, unless the common duct or the hepatic duct is obstructed by enlarged lymphatics. As the amyloid change first affects the branches of the hepatic artery, the portal is not interfered with until later. Ascites exists in about one fourth of the cases, and is often preceded by œdema of the lower extremities, the result of a general hydræmia.

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* *Op. cit.*

† Orth, "Diagnosis in Pathological Anatomy." P. 321. Riverside Press. 1878.

‡ Förster, *op. cit.*, p. 272.

The appetite is usually poor, but in exceptional cases is voracious. Food in the solid form excites uneasiness soon after it is swallowed, and is rejected by vomiting, or passes unchanged in the fæces, unless it is very bland and capable of entire solution in the stomach. The fatty, starchy, and saccharine articles of the diet undergo decomposition in the intestine, and a great deal of gas—the foul compounds of hydrogen with sulphur and phosphorus—is the result. The amount of bile passing to the intestine lessens with the increase of the deposit in the hepatic cells, and ultimately the secretion is arrested, and the office of the bile in preventing putrefaction and in emulsionizing the fats terminates. The obstruction to the portal circulation maintains a constant hyperæmia of the gastro-intestinal mucous membrane. As a result of these causes, the stomach and intestines become irritable, and frequent liquid stools, now pale from the absence of bile, now dark from the presence of blood, are passed. Amyloid degeneration also invades the arterioles of the mucous membrane and the substance of the villi, and destructive ulcers are formed in consequence (Frerichs). The urine is pale, abundant, of low specific gravity, and contains waxy casts and a trace of albumen. It is not surprising, in view of the structural alterations and impairment of functions, that the subjects of amyloid degeneration present a peculiar, anæmic, and pallid appearance, are breathless on the least exertion, and emaciate rapidly.

Course, Duration, and Termination.—As amyloid degeneration is preceded by suppuration, or some chronic wasting disease, the moment this change begins escapes recognition. Indeed, the peculiar deposits have been quite extensively distributed before any characteristic symptoms appear. When the process once begins it extends at a pretty uniform rate, and death takes place by exhaustion and general dropsy, or the end is reached by an intercurrent malady, as pneumonia, pleurisy, etc. Its course is essentially chronic; its duration months or a year or more; its termination fatal. Notwithstanding the unfavorable prognosis, the disease is not always fatal, and cures have been reported, especially of those cases having a syphilitic history.

Diagnosis.—The enlargement of the liver due to amyloid deposit is to be differentiated from fatty liver, hydatid disease, cancer, etc. From fatty liver it is distinguished by the greater firmness of texture, the well-defined margin, and especially by the accompanying disorders of the spleen, kidneys, and intestinal canal. From hydatid disease it is separated by the same signs, and by the characteristics of the hydatid tumor, which enlarges painlessly, is elastic, and furnishes on palpation the "purring tremor." The changes in the liver produced by cancer are secondary to the original deposit, which is most frequently in the stomach, and the enlargement of the organ is hard, nodular, and irregular. The urinary secretion is not affected in cancer, but jaundice is often present.

Prognosis.—Few if any cases of true amyloid disease recover, and indeed recovery can hardly be possible when the hepatic cells are entirely filled with such a material. Cases presenting the signs of amyloid degeneration, but not far advanced, have recovered. Although the prognosis is grave, it is not necessarily fatal.

Treatment.—Prophylaxis necessarily occupies an important position in the therapeutical management of this disease. As so many—much the largest number—owe their origin to suppuration of bone and to syphilitic infection, it is highly necessary to stop the influence of these morbid processes at an early period in all cases. If there be any reason to suspect constitutional syphilis, appropriate treatment should be at once instituted, and the most efficient remedy under these circumstances is a compound of iodine: the compound solution of iodine—ten drops in water, three or four times a day, may be given; or, if there be much anæmia, the syrup of the iodide of iron, and especially the syrup of the iodides of iron and manganese. The author has had the best results from the persistent use of the iodide of ammonium in small doses frequently repeated—five grains every four hours, and well diluted with water. Budd urges the employment of the muriate of ammonia (ammonium chloride), but the iodide, the author believes, is much more efficient. Mercurials are injurious.

The diet should consist of those alimentary principles which undergo digestion and absorption in the stomach—as milk, animal broths, eggs, fish, etc.; and starches—as bread, potato and rice, sugar in any form, and fats, ought to be avoided, because they require the action of the intestinal juices. The food-supplies should be small in quantity, and given frequently, because of the intolerance of the gastro-intestinal mucous membrane. Inunction of fat, especially of cod-liver oil, is a highly useful addition to means for promoting the nutrition.

CARCINOMA OF THE LIVER.

Etiology.—Nothing is definitely known as to the origin of cancer, in any situation, but there are certain facts connected with its development, which it is important to recognize. It is a disease of advanced life, and is more apt to appear from forty to sixty than at any other vigintennary. But cancer of the liver appears in early life relatively more frequently than cancer of the stomach. It occurs with about equal frequency in the two sexes. Heredity, although the fact can not be expressed in figures, is doubtless the most influential factor in its genesis.

Pathological Anatomy.—The ordinary form of cancer is found in the liver, the variety being determined by the relative proportion of the fibrous stroma, the cells, and the juice; it is most frequently medullary or encephaloid. When infiltrated with pigment it becomes *melanoid*, and, when vessels predominate, *telangiectatic* cancer, but these are accidental differences. The cancer formation may be in nodules or isolated masses, or diffused through the hepatic parenchyma. The size of the nodules varies from the dimensions of a pea to that of a child's head (Förster), and they are in numbers inversely as their size. There may be one or two of large size, or a great many of small size, distributed through the substance of the organ. Those on the surface are rounded, with a central umbilication, produced by a fatty metamorphosis of the center of the mass, and contraction of the peripheral portion. The peritonæum is adherent usually, and is cloudy, thickened, and covered with a membranous exudation, or it may remain normal. The consistence of the masses varies with the form of the cancer—it is soft, brain-like, or almost creamy, or it is hard and cartilaginous. The explanation of the origin of the growth differs, but it may be stated that the cancer develops from the interlobular connective tissue. The branches of the hepatic artery are intimately concerned in the morbid process; they increase in size, and permeate the new formation, while the branches of the portal vein shrink. With the development of the cancer-cells (by division and endogenous formation of the connective-tissue corpuscles—Wagner *) the proper hepatic cells disappear. The new vessels developed from the branches of the hepatic artery have very delicate walls, and are liable to rupture, infiltrating the cancer-masses with hæmorrhagic extravasation. When the periphery of the organ is reached by the new formation, hæmorrhage may take place into the peritonæum, and sudden death ensue from this cause. The branches of the portal vein are compressed, or they may be filled with cancer-cells. The lymph vessels and glands may also become filled and infiltrated. The bile-ducts are compressed and disappear, except the larger ducts, which become dilated into pouches with retained bile, or pass unchanged through the cancer-masses.

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* "General Pathology." Translated by Drs. Van Duyn and Seguin. New York, 1876, p. 503.

The growth of cancer is not continuous and uniform, but paroxysmal, as it were—now rapid, now slower; and when the formations have existed for some time they undergo a fatty metamorphosis. It is this change in the interior of the nodules which leads ultimately to the umbilications already mentioned. The hepatic parenchyma not invaded by the cancerous new formation remains unchanged, or is more or less hyperæmic, or undergoes atrophy. The size of the whole organ is usually increased, and sometimes it attains extraordinary dimensions, weighing ten, fifteen, or twenty pounds (Frerichs).

Cancer of the liver is rarely primary, but is secondary to a deposit elsewhere, most frequently in the stomach. Of ninety-one cases collected by Frerichs, forty-six were secondary to cancer in organs having a vascular communication with the liver, and cancer was primary to the liver in scarcely one fourth of the cases. The author has met with one case of primary cancer of the gall-bladder, the morbid process *apparently* beginning in the exudation of a local peritonitis caused by the passage of hepatic calculi.

Symptoms.—Cases of cancer of the liver are occasionally encountered in which no characteristic symptoms existed; the patient has ill-defined uneasiness in the right hypochondrium, disorders of digestion, and low spirits; he emaciates progressively, is cachectic, and ultimately dies. Again, cancer of the liver has a clinical history which is merely the conclusion of a series of symptoms referable to cancer in another organ, notably the stomach. The defined symptoms of hepatic cancer are apt to be obscured by some leading condition associated with it, as ascites.

Those attacked with cancer are advanced in life as a rule. Before any symptoms of disturbance in the hepatic functions manifest themselves, there are present disorders of digestion, flatulence and constipation. Then feelings of uneasiness, of weight, of tension, and of pain in the right hypochondrium are experienced. On palpation, soreness is developed by pressure, and the liver is felt stretching beyond the margin of the ribs; it is indurated, irregular in outline, and nodulated. In the further progress of the case, the liver extends downward still more, and nodules can be easily made out; the area of hepatic dullness is increased in all directions, but chiefly downward, and there may be a good deal of spontaneous pain and exquisite tenderness on pressure by reason of a local peritonitis.

Jaundice is not present in the majority of cases, and exists only when the lymphatic glands in the fissure or the cancer nodules are enlarged sufficiently to compress the hepatic or common duct. Ascites is present in about one half of the cases, and is produced more frequently by peritonitis than by compression of the portal, but this vessel is obstructed occasionally by cancer thromboses. The ascites may be so considerable as to produce great distress by embarrassment to respiration and by interference with the circulation. The ascites may be in part due to the watery condition of the blood. The fluid is a pale, straw-colored serum, or it contains flocculi of lymph and is turbid, or it is mixed with blood, the source of which has been heretofore alluded to. Gastro-intestinal catarrh is set up by the congestion of the portal system; hæmorrhoids form; hæmorrhages occur from the intestinal mucous membrane, and an obstinate watery diarrhœa succeeds to the constipation which was an early symptom. All of these causes combine to produce a cachectic state. The complexion gradually assumes the characteristic earthy or fawn color, emaciation is extreme, the feebleness is excessive, the hands and feet are cold, the skin is dry and harsh, and the expression is dejected and worn.

Course, Duration, and Termination.—The course of cancer of the liver and its duration are much influenced by its form—the medullary proceeding to a fatal termination more rapidly than scirrhus. As already stated, the progress is not uniform, the growth at times being suspended and then again quickening into renewed activity. Cases terminating in eight weeks have been reported, and others continue with varying fortunes for months and years. There is but one mode of termination, that in death.

Diagnosis.—It may not be possible to diagnosticate cancer in those cases without any local symptoms, or in the incipiency of any case. When, however, the enlarged and nodulated liver can be felt, the difficulty of diagnosis is much less, especially if the patient is of advanced age, and the cachexia, the ascites, etc., are also present. Distinction is to be made between cancer, abscess, echinococcus, and amyloid disease; in all these the liver is enlarged (as a rule) and projects downward, but in cancer the organ is nodulated and indurated; in abscess it is smooth and softer, and may be fluctuating; in echinococcus it is smooth, elastic, and having the purring tremor; in amyloid it is smooth and uniform, but indurated. They differ in their clinical history and in their cause, in their duration and in their termination, so that a diagnosis can, in well-marked cases, be readily made.

Treatment.—The treatment must necessarily be palliative and symptomatic, as there is no remedy for cancer in any situation. Anodynes will be required to relieve pain. Careful regulation of the diet, according to the conditions present, and the timely administration of stimulants will be demanded. Ascites will require the treatment indicated for that disease, especially the tapping—for the interference with repose caused by a distended abdomen is one of the most distressing complications.

ECHINOCOCCUS OF THE LIVER (HYDATID DISEASE OF THE LIVER).

Definition.—By the terms echinococcus of the liver, hydatid disease, cystic degeneration, multilocular cyst, etc., is meant the penetration into the liver of the scolex of the sexually immature tænia echinococcus. The embryos, gaining access to the intestines of man, migrate, and, doubtless chiefly by the portal vein and bile-ducts, reach the liver, in which the cyst or cysts develop, sometimes attaining immense size.

Causes.—As the echinococcus is the tænia of the dog, only those who live in a humble way, with their animals about them, suffer from these migratory parasites. As the ova are discharged with the excrement of the dog, it is obvious that they can gain admission to the human stomach only through the most filthy practices, or by carelessness in the obtaining and storing of drinking-water and food. In Iceland, more than in any other part of the world, do the people suffer from cystic disease—as large a proportion as one sixth of the population being infected. This preponderance of the disease is due to the number of dogs and to the promiscuous way in which the members of a family and their dogs live together in their wretched hovels. The disease occurs at the middle period of life chiefly, and rarely in the young. In the only case of echinococcus of the liver met with by the author, the patient, a male, was forty-two years of age.

Pathological Anatomy.—When the echinococcus (or two or more) lodges in the liver it is presently enveloped in a tough, fibrous, yellowish-white membrane, constructed out of the adjacent connective tissue, and closely adherent. Within this adventitious membrane is contained the embryo, inclosed in a clear, translucent sac made up of numerous concentric layers. This sac of the embryo is the mother-sac, and in the interior of it a number of so-called daughter-vesicles, and still other, granddaughter-vesicles, are developed, and ultimately the mother-sac, with its investing membrane, attains to extraordinary dimensions. The daughter-vesicles vary in number from a few up to many thousands, and in size from that of a pea to that of a goose-egg. The fluid of the sac is clear, opalescent, weakly alkaline, and of a specific gravity of 1·008 to 1·013; it contains no traces of albumen, but a large proportion of sodium chloride and some crystals of cholesterine and hæmatoidine.* The inner membrane of the daughter-vesicles is lined with a germinating layer, from which the embryos spring; and scolices, attached as well as free, can be observed within the sacs. These scolices are the immature tæniæ, and can be recognized with a low power—sixty diameters—as possessed of a head, four suckers, and a row of hooklets. When detached, these scolices have the power of active motion, and can withdraw their probosces and hooklets within their own cavity. There are hydatids without daughter-vesicles, and others entirely without a scolex, which were denominated by Laennec acephalocysts, and by Küchenmeister,* sterile echinococci.

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* Davaine, "Traité des Entozoaires." Paris, 1872, p. 379.

There are great variations in the size, number, and position of the cysts. They are found in all the lobes, but most frequently in the right, buried in the substance or projecting from the surface of the organ. Usually but one cyst exists, but there may be several—as many as five or six. It follows that the size, shape, and appearance of the liver will vary with the number, position, and growth of the cysts. It may attain a sufficient size to distend the abdominal cavity, or at least make a great protrusion in the right side. With the growth of the cyst, the hepatic tissue is correspondingly atrophied, by being encroached upon, while the rest of the organ remains intact, or undergoes hypertrophy, or is hyperæmic. As a rule, the cysts do not obstruct the large blood-vessels and bile-ducts; hence the infrequency of ascites and jaundice; yet both may be encroached upon—even obliterated. It sometimes happens that communication is established between bile-ducts and the cyst, by the breaking through of the duct in the course of development of the cyst, and, bile entering, the growth of the echinococcus is arrested. The cysts sometimes penetrate the common duct, also the gall-bladder, and rarely the portal vein. They may be discharged through the ducts, and a cure be thus effected, but, if they enter the veins, thrombi form, with the usual disastrous results.

Echinococci-cysts may undergo calcification. The adventitious envelope becomes thicker and tougher, and calcareous salts are deposited; expansion and growth are prevented; the parasites die, and are found flattened and contracted. In other cases there is developed in the interior of the capsules a dense, honey-like or puriform fluid, which had previously been clear and then milky, and remains of the scolices, especially the hooklets, are found floating in, or mixed with, the contained fluid. Crystals of hæmatoidine and bile also are found mixed with the contents of wasting cysts.

A great many cysts are destroyed and cease to grow, as has been described, but many continue to enlarge, pushing up the diaphragm and displacing the heart, and reaching sometimes as high as the second rib (Frerichs). Others, growing downward from the under surface of the liver, push aside the stomach, and force the abdominal organs into the pelvis, or, but rarely, compress the ascending vena cava, causing œdema, varicose veins, etc. A cyst may rupture into the cavity of the chest—into the pleural or pericardial sac, causing fatal inflammation, or excavate a cavity in the right lung, and shreds and parts of the vesicles be discharged through the bronchi by expectoration. A cyst may also rupture into the peritonæum, producing fatal peritonitis, or into the intestines, and be slowly discharged by stool. Rupture within the abdomen is usually due to a blow or other injury, but is sometimes spontaneous.

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* "Animal and Vegetable Parasites," *op. cit.*

The echinococcus multilocularis, which was formerly mistaken for colloid cancer, but has since been accurately described by Virchow, differs from the ordinary form, in that it is a very firm, hard tumor, consisting of dense fibrous tissue, containing cavities filled with a gelatinous material. On account of its tendency to ulcerative degeneration, Virchow called it the "ulcerative multilocular echinococcus-tumor." Friedreich* holds that the development of this form takes place in the gall-ducts and blood-vessels.

Symptoms.—A cystic tumor of small size, deeply placed, and not so situated as to interfere with other parts, may not cause any symptoms, and therefore remain undetected. But a cyst of considerable size, projecting from the liver, or which has increased the size of the organ, and especially if it has encroached upon neighboring parts, will cause sufficient disturbance of function to lead to its early recognition.

If a cystic tumor increases to any considerable extent the volume of the liver, there will be a feeling of weight, heaviness, and dragging in the right hypochondrium, and some disorders of digestion; if it happen to be near the hilus of the organ, the portal vein and the common or the hepatic duct may be pressed upon, causing ascites and jaundice; if near or at the upper convex surface of the right lobe, the diaphragm will be pushed up, and a dry cough and dyspnœa will be the results. The degree of enlargement is necessarily various. The tumor may fill in the whole space from the inferior border of the second rib to the pelvis, displacing the thoracic and abdominal organs, and forcing out the intercostal spaces. The tumor may take various forms: the liver may be uniformly enlarged; there may be a growth projecting from the borders of the organ, and having a globular or hemispherical form similar to that of the gall-bladder; or, one lobe may be the seat of the growth, the other remaining intact.

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* "Virchow's Archiv," vol. xxxiii., p. 16. Ueber multilokulären Leber-echinokokkus.

On palpation, an hydatid tumor is elastic, resisting but soft, fluctuating, and, in somewhat more than half the cases, presenting the peculiar fluctuation known as "purring tremor," or "hydatid purring"—a sensation appreciated by the sense of touch as the trembling of a bowl of jelly appears to the eye. The tumors are not painful, and it is exceptional for any tenderness to be felt on pressure. Jaundice or ascites occurs only in the rather rare event of a tumor near the hilus, or so situated as to compress the vein and duct. Dyspnœa and cough occur when the cyst develops into the thorax; irregular action of the heart, when this organ is pushed from its position; constipation and vomiting, when the intestines and stomach are encroached upon; swollen and œdematous feet and ankles and enlarged veins, when the cava is compressed. All of these symptoms arise, when the form and direction of the cyst develop them, without any constitutional disturbance, and if such disturbance occur it is due merely to the interference of the growth with important functions. If the echinococcus burst, new symptoms arise. If the stomach is entered, there will be some local pain, and the parasites will be rejected by vomiting, often in immense numbers; if the intestine is perforated, the parasites are discharged by stool, and recovery may ensue in either case. If the vena cava is entered, sudden death with the symptoms of asphyxia takes place. If the pleural cavity receive the echinococci, pleuritis is excited, and the cysts, with the products of inflammation, may be subsequently discharged through the lung by a bronchus. If the pericardium is suddenly filled with echinococci, the action of the heart is disturbed, and fatal pericarditis quickly excited.

Course, Duration, and Termination.—The hydatid disease is essentially chronic in its course. The development of the cyst is affected by its surroundings; and in the interior of organs, subjected to pressure on all sides; the growth is slower than if it is deposited on the surface. They last from one or two years up to thirty, but the most usual duration is two to four years. They may undergo a spontaneous cure: the echinococci die, or on the opening of bile-ducts they are killed by the entrance of bile, and subsequently shrivel up; they are discharged through the stomach and intestine, or by the bronchi, and recovery slowly ensues. Death is not unfrequently produced by echinococci—by gradual failure of the powers of life; suddenly, by entrance of the parasites into the vena cava or the pericardium; and gradual failure by pneumonia, or suppuration, or pyæmia.

Diagnosis.—Echinococci of the liver may be confounded with abscess, cancer, dropsy of the gall-bladder, aneurism, and hydrothorax. It differs from abscess, cancer, and hydrothorax by the absence of pain and constitutional disturbance; from abscess, by the character of the fluctuation; and from cancer, by absence of the hard, non-fluctuating nodules of the latter. From dropsy of the gall-bladder it is distinguished by the lack of a history of attacks of hepatic colic, their cessation and the enlargement of the gall-bladder coming on slowly; but the distinction is most certainly made by the use of the aspirator, since it has been shown that this organ may easily and with perfect safety be penetrated by the needle. From aneurism, echinococci are readily differentiated by the existence of a heaving, expansile pulsation in the former, without the peculiar fluctuation of the latter. There is more real difficulty in separating hydatids pushing up the diaphragm from effusions into the pleural cavity, as the physical signs are the same. An attentive consideration of the previous history will aid materially in arriving at conclusions. The growth of echinococcus is slow and painless, and the development of the local symptoms is free from that disturbance which precedes the occurrence of an effusion in the chest.

But, above all other means for coming to a correct conclusion, must be placed the use of the aspirator and the microscopic examination of the fluid.

Prognosis.—When the echinococcus is large, and its particular direction unknown, the prognosis is grave. The early use of the aspirator enters largely into the question of prognosis, for early puncture will insure the death of the parasite. When discharge takes place by the stomach and intestine, the prognosis will be favorable; and recovery may also be expected in those cases discharging by the bronchi, provided the right lung is only so far damaged as to permit the passage of the cysts. When there is a large suppurating cavity in the right lung, the prognosis is unfavorable.

Treatment.—There is no medicinal treatment which can in any way affect the origin or growth of the echinococci. Fortunately, we possess simple surgical measures by which these cysts may be safely and certainly closed. These are, puncture by an aspirator needle and withdrawal of some ot the fluid, and electrolysis. Whenever a cyst can be reached by the needle, it can be subjected to either of these expedients. The simple puncture and withdrawal of some of the fluid contained in the mother-vesicle should be tried first, as this has succeeded in numerous instances. This failing, the method by electrolysis should be practiced. Dr. Hilton Fagge and Mr. Durham * report eight cases in which electrolytic decomposition was employed with entire success. Two needles connected with the negative pole were inserted into the sac, and the positive pole, in the form of a large sponge-electrode, was applied on the integument in the neighborhood. Ten cells were used to furnish the current, and the needles were permitted to remain ten minutes. As, in the process of electrolytic decomposition, hydrogen and the alkalies (potassa, soda) appear at the negative pole, it is obvious that the parasites must be killed by the electrolytic action. Besides these measures, iodine has been injected into the mother-sac with success.

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* "Medico-Chirurgical Transactions," vol. 154. "On the Electrolytic Treatment of Hydatid Tumors of the Liver, with an Addendum on Simple Acupuncture."

Out of the very large number reported cured by aspiration, the following may be referred to: Lancereaux, two cases; Bradbury, six cases, of which five were successful; Wadham, two cases. Ullia, Bussard, Laveran (cured by a single puncture), each a case; Buecquoy, six cases, one death. Degoix, summing up in his "Thèse de Paris" the various plans, places aspiration first among the methods of cure. Also, Trousseau* regards it as of the first importance as a therapeutic measure.

(*To be continued.*)

ON CHYLURIA AND THE FILARIA SANGUINIS HOMINIS.

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It is a startling condition for a patient when he first finds himself voiding from his bladder what to all appearance is pure milk, yet such is the case in the affection termed chyluria. Little attention has been given in this country to the study of this disease. It has usually been considered to be of interest only to those practicing in tropical countries, because its existence was for a long time regarded as limited strictly to hot climates. Such, however, is now known not to be the case, as we shall see further on.

Among the very earliest descriptions of the disease, that given by Dr. Prout nearly forty years ago comprised all that we knew regarding it until within the past eight or ten years, when attention has been turned to it by English physicians practicing in India and elsewhere in the tropics. Though the disease was termed chyluria, from the fact that no fluid but chyle was thought capable of rendering the urine oily or milky, the exact mode of transit of this fluid into the urinary channels is explained only by the light of recent pathology.

Of the symptoms, a brief mention will suffice. It is usually rather abrupt in its onset. The patient may have passed clear, limpid urine at one evacuation, and at the following one may void the characteristic fluid—the "milky urine." It is more common, however, to have this state pass unnoticed for a few days, or sometimes weeks.

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* "Clinique Médicale," vol. iii., p. 213.

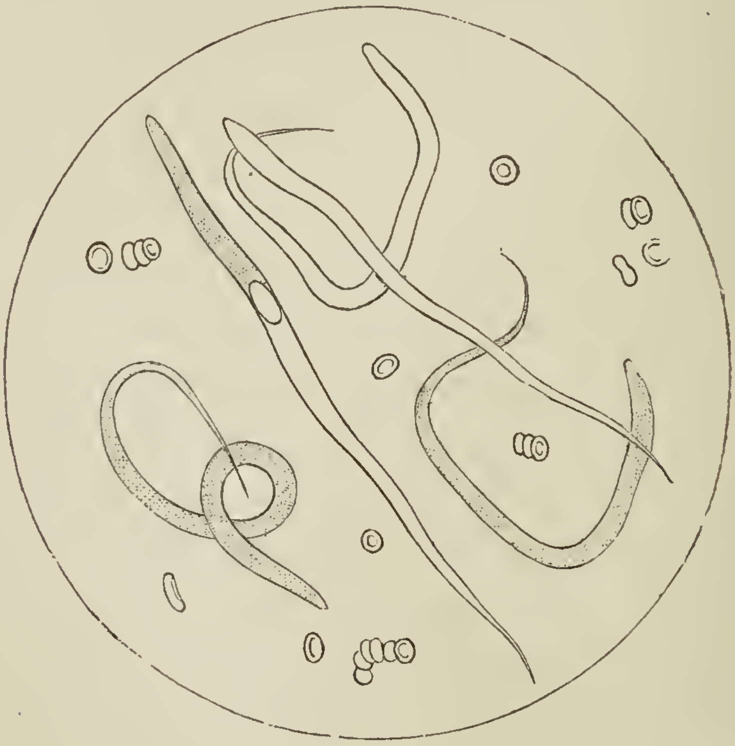
The attack is usually ushered in by no marked symptoms. There may be languor and vague pains, but they are not the rule. No sensations referable to the urinary channels are present in most cases, although in one case, to be related further on, there was a passage of a gelatinous mass coincident with the onset of each attack. When the disease is once established, it either continues for many years, or may present intermissions, or, in a minority of cases, be cured and never return.

When it persists for many years, it may give rise to serious symptoms, but these are due to the exhausting effect of the loss of so much fatty matter, and possibly blood, from the system. The worst cases show lumbar pains, neuralgias, disordered bowels, coated tongue, dry skin, and symptoms analagous to those of diabetes mellitus, and finally, in very rare cases, death by exhaustion. On the other hand, some obstinate and marked chyluric cases persist for many years without grave symptoms. In general, then, languor, a sense of fatigue, vague lumbar pain, and the emission of milk-like urine, are the only symptoms, and sometimes all are wanting but the characteristic urine.

The fluid, when passed, has an opaque white appearance quite like that of common milk—not a thin, pearly, watery-looking fluid, but as dense as ordinary cow's milk. Occasionally it has a pinkish tinge from slight coincident hæmaturia. On allowing it to stand in a bowl, it usually coagulates in half an hour or more, and looks like thin blanc-mange—sometimes firm enough to be turned out of the vessel and retain its shape. A few hours later this disintegrates and liquefies, and soon a cream rises to the surface, as with milk, while the urinary deposits, salts, and blood, settle as usual. The urinous odor is much fainter than normal. The amount voided varies. It is usually slightly above the normal. Occasionally, as in one remarkable case given below, there was marked suppression—without grave symptoms.

Chemically, it contains, besides the normal ingredients, oil and fibrine—sometimes albumen, especially if there be much blood—no caseine. The crucial test for the oil lies in mixing equal quantities of urine and ether, and agitating in a test-tube. Immediately the urine is clarified, and the ether, with oil in solution, rises to the surface. The urine now shows its normal amber color. This striking test distinguishes the chylous fluid from urine loaded with salts, notably urates, which superficial observers have sometimes been led into the error of considering as chylous urine, as in one or two cases of which I have known. Microscopically, the urine does not present the oil in small globules, as they are found in milk and chyle, but divided in a molecular form, so that it is impossible, except in rare instances, to find anything more than the finest granular matter, not to be recognized as fat by the microscope. After the cream has risen, however, large and small oil-globules are seen. The quantity of oil can be readily ascertained by decanting and evaporating the ether which floats after agitation with a given amount of urine. By repeated examination it is found to be from one to two per cent. of the urine passed.

In considering, now, the etiology of this curious affection, we find that all that is known has been discovered within the past ten years. Up to that time the affection was supposed to be caused by an accidental rupture of the chylous or lymphatic ducts into the urinary channel, though at what point, or in what manner, was not revealed by post-mortem investigation, nor could any explanation be given. We now know that, in tropical countries at least, the prevalent hæmaturias and chylurias are invariably associated with the presence of a minute living worm—the nematoid, or filaria, of the blood—microscopic in size, and swarming in countless numbers in the circulating blood. To Dr. Timothy R. Lewis all credit is due for its discovery in 1872. Prior to that, it had been observed as present in the urine in hæmaturia and chyluria cases in Brazil by Dr. Wucherer, and in India by Dr. Lewis in the following year. But its presence as an inhabitant of the blood was observed first by Dr. Lewis in a patient suffering from chyluria and diarrhœa. Fifteen successive cases of chyluria alone were examined, and the result confirmed, before he announced his discovery. The blood was literally swarming with them. A single drop obtained from pricking any part of the body would show from one to ten or even thirty living worms. By fair estimate he computed one hundred and forty thousand as the smallest number circulating in the entire system. Dr. Manson, a careful student of the subject, estimates that there are no fewer than two millions in the blood of some subjects. The "filaria sanguinis hominis (Lewis)," as the parasite was properly named, is found to be considerably smaller than the trichina spiralis, which, however, it resembles in appearance. Its length is $\frac{1}{75}$ and its diameter $\frac{1}{3500}$ of an inch. Thus, it will be observed, its diameter is that of a blood-corpuscle only, so that it can travel through the finest capillary vessel without obstructing it. It would seem to limit its travels to the blood-channels and lymphatics, working backward probably through the thoracic duct and the lacteals, and thus entering the lymphatics. It has no tendency to migrate into outside tissues, nor does it tend to penetrate the vessels, as the trichina does. The accompanying cut represents a few typical filariæ, chosen from numerous drawings from the blood of a chyluric patient observed in 1875, whose case is related below.



Regarding the exact mode of entry and source of reproduction of this parasite, we have yet much to learn. Within five years past, however, we have gotten some of the fruits of many ingenious and untiring workers, such as Bancroft, Manson, Lewis, Cobbold, Carter, and many others.

In 1878 Dr. Manson, of Amoy, China, made a study of numerous cases, and found that, when a mosquito drew blood from a chyluric patient, it sucked up great numbers of filariæ with the blood—indeed, that in a given quantity drawn up there were many more worms than in the same quantity in the circulation. He found from ten to twenty, and once as many as one hundred and twenty, filariæ in the stomach of a mosquito which had fed from a patient. At once beginning to study the animal in its new home, he found that it rapidly underwent changes of development, increasing considerably in size, and showing an alimentary canal and other markings. Its presence did not disturb the mosquito's habits, but, when the latter discharged her ova into the water, she disgorged or evacuated also the filariæ, which were thus in their changed state prepared to enter the human system again through drinking-water.

These observations and this theory of its mode of entrance have been assailed as improbable by observers, some of whom have studied the mosquito-stage of the filaria, and shown that the parasite undergoes digestion in the stomach of that insect. Manson, however, ably defends himself by showing that there is a filaria swarming in the blood of dogs, and almost identical with the filaria sanguinis hominis, but which is an embryonic form of the filaria immitis, or large lumbricoid, so commonly found choking up the hearts of dogs in the same climates, and that this filaria is always digested by the mosquito, whose stomach has a selective action that spares the nematoid of man. Thus it destroys the one while acting as "nurse" to the other. The worm infesting the dog was probably studied by his assailants. Yet Manson further finds that, of the many from human blood ingested by the mosquito, only a few, perhaps one in ten, develop—the majority dying and undergoing digestion. While, however, Dr. Manson's observations show that the mosquito is the "host" or "hostess" of the filaria during a certain phase of its life, the ingenious theory of its method of reëntering the human body through drinking-water has been held to be improbable, and numerous observers, believing that the filaria found in the circulating blood is an embryo without reproductive power, and that the parent worm would be found lodged in the body, have sought diligently for the latter. Manson's claim for the curious mosquito stage of the nematoid is, that it is a partial development only, or a chrysalis state, and that, becoming fecundated in the human alimentary canal, it lodges and reproduces there, whence its embryos enter the blood in countless numbers. This is not improbable, and agrees with the discovery of the fully developed worm by Dr. Bancroft in 1877. This seems to complete the circle of filarial life. After laborious search, Dr. Bancroft, in Australia, removed one worm from a lymphatic abscess of the arm, and four from a hydrocele, in filarious, chyluric patients. The adult hæmatozoon is from three and a half to four inches long, is smaller than a human hair in caliber, and emits living embryos in countless numbers from two apertures of its body.

This discovery excited the greatest enthusiasm in Dr. Cobbold and other students of helminthology, who share with Drs. Bancroft and Lewis and others the opinion that a considerable group of morbid conditions hitherto obscure originates in the injurious action of the nematoid. The body may be affected either by the parent worm, causing abscesses by hydroceles, tumors of the skin, etc., or by the embryos becoming entangled in the capillaries and giving rise to obstructions either of blood-vessels or of lymphatics. Critical study of many diseases endemic in the tropics has lately lengthened the list of those caused by filariæ, until it now includes, besides chyluria: lymph-scrotum; elephantiasis; some cases of leprosy; a skin disease endemic in Africa, called *craw-craw*, the symptoms of which are almost identical with those of scabies; hæmaturia; phlebitis; furuncles; a form of hydrocele in which the fluid is fibrinous and one in which it is chylous; some forms of orchitis; and lymphatic abscesses. One filarious patient was observed to have, within the space of a few years, several attacks of erysipelas, chyluria, craw-craw, lymph-scrotum, and scrotal elephantiasis. Yet it is by no means true that all cases of chyluria, or of elephantiasis, or of lymph-scrotum, have this origin. Indeed, care should be taken to avoid charging too much upon it. It seems that, as yet, few cases of true filarious disease have occurred, except in persons who have visited countries where it is prevalent. Dr. Manson's statistics regarding its prevalence in China are indeed rather startling, for he asserts that one eighth of the population of Amoy have filariæ in their blood. Drs. Hall and Patterson found the same true of one in twelve of the general population of India. That many of these people never suffer is only to be accounted for by the minute size of this embryo, which passes through the capillaries without choking them, unless some exciting cause arouse undue activity. An interesting illustration of this tolerance is well shown in one of Dr. Lewis's first cases. A compositor, setting up the type of an article by him upon this subject, announced himself as a forgotten patient of the doctor's, who had had chyluria two years and a half before, but who had been cured and had retained perfect health. The doctor immediately obtained some of his blood, and found it still full of living filariæ.

How many patients in our climate are similarly inhabited, it remains for future study to show. In England they are very rare. Yet in our country, with its large population traveling to South America, the West Indies, and elsewhere in the tropics, and back again, it will not be surprising if some obscure diseases have been contracted and imported, which a more general study of the blood will show to be due to a parasite. As to the manner in which the filaria produces chyluria, we have but few autopsies to study. In one of Dr. Lewis's cases, the kidneys were found with filariæ in the capillaries in every part, and the lymphatic channels throughout were dilated alongside the urinary tubules. In all probability, then, chylous fistulæ are established into the urinary channels. It may be in the kidney, or in the mucous membrane of the lower canals—quite analogous to those cases of lymph-scrotum and lymphoderma occasionally seen in all countries. The origin of chyluria, then, may be said to be filarious in most cases. Yet I believe it would be an error to regard this as the only cause. Many cases occur in cool climates, like our own, in persons who have never been away from home, as in two cases cited below; and in these the etiology is yet obscure, for no filariæ have been found in the blood or urine. The disease may then represent a functional disturbance, the kidneys eliminating granular fat as they do sugar, albumen, and other abnormal constituents. Or, again, it may depend upon obstruction of lymphatics from other than filarious causes.

Case I.—P. D., æt. twenty-eight years, came to me in June, 1875, complaining of passing "white urine." He gave the following history: He was born in Santa Cruz, West Indies, was taken to Copenhagen when four and a half years old, and returned to the West Indies when fifteen years of age. Two years later, in 1864, he was thrown from a horse, and sustained a severe injury of the right side. He acquired a hard cough, with purulent expectoration, and ran down in health. The urine at that time was normal. Six months later he took a trip to Copenhagen. During the first three weeks he was very seasick, and had a large crop of boils. The weather was very cold. At the end of three weeks he was surprised to find one morning a difficulty in micturition. He then passed a small gelatinous lump, with force, and this was at once followed by milky urine—the first appearance of this phenomenon. During the succeeding three weeks of the voyage he improved very much in flesh, and had no more boils, but continued to void milky urine. In Copenhagen he sought medical advice, and took various mixtures, one containing turpentine. In two weeks the urine was clearer, though not normal. An attack of what was thought to be scarlet fever then followed, and his urine became normal. He recovered, returned to the West Indies, and remained well till 1871, seven years after.

In October, 1871, while out walking, he was seized with a great desire to urinate, and, after much straining, passed a soft, gelatinous lump, as large around as one's finger, harder than before, and expelled with such force as to adhere to the board fence against which the stream of urine was directed. The gelatinous mass was streaked with blood, and the urine was again densely milky. Each successive micturition was scorching. He took camphor without relief. Fever of an intermittent type succeeded, with constitutional disturbance and continued chyluria for three months. He was then attacked by a phlebitis of the right thigh and leg, which was serious, but passed off. This was in May, 1872. He took nitre and various drugs. He had his bladder washed out three times a day for a time, but found no relief. Finally, in August, 1872, he tried change of diet, living lightly on poultry, vegetables, etc., with some relief. Moderate chyluria continued until 1874, when he came to New York, run down in health, and unable to undergo exertion.

A fortnight after his arrival, in May, 1874, he passed another lump, as before, which ushered in another course of dense chyluria. He was treated in Brooklyn with gallic acid without relief; and then with turpentine, with some benefit.

In June, 1875, he came under my care. He was not very strong. He had a dark, sallow complexion. Mentally, he was very bright. His urine, when passed, was opaque and milky, and, after standing from twenty minutes to an hour, coagulated like blanc-mange. The mass liquefied in from twelve to twenty-four hours. When the coagulating power was most intense, a certain amount of soft coagula would pass from the bladder. On one occasion they caused severe retention—his suffering not being relieved for several hours by the hot bath, opium, belladonna, or the use of the catheter. There was also voided, at intervals of from one to several weeks, a gelatinous lump, like very tough mucus, often streaked with blood.

Careful and repeated examination of the urine for the Bilharzia hæmatobia failed to show any parasite, but examination of these gelatinous masses always revealed the smaller worm figured in this article, which, in my ignorance of Dr. Lewis's discovery, was not then recognized as the filaria sanguinis hominis. Drawings were made, and notes taken, however. But, when, two months later, I read of Dr. Lewis's discovery of the parasite in the blood, the patient had gone from the country.

The urine voided by the patient varied from thirty-two to fifty-four ounces daily. Its specific gravity was 1·020; its reaction, acid; and it was coagulated by nitric acid. Quantitative analysis showed eight grains of pure oil to the ounce of urine. The daily excretion of oil, therefore, was from half an ounce to one ounce.

Treatment.—The diet was found to affect the character of the urine quite markedly. Meat and fatty food increased, and exclusively vegetable diet diminished, the amount of oil excreted. Gallic acid had little or no effect. Oil of turpentine, twenty drops, on sugar, three times a day, increased the quantity of urine, and diminished the oil. In a fortnight the milkiness was much less, and the few coagula that formed dissolved quickly. In three weeks specimens varied from natural and transparent to slightly opaque; yet it still occasionally coagulated in the bottle, like lymphous urine or like watery gelatine. Afterward the urine became natural.

Case II.—Shortly after the above case, I learned of a chyluric subject in Baltimore through a mutual friend. He was, as I was told, under no medical treatment. I therefore sent for particulars and specimens of his urine and blood. The patient was aged forty-five years, had suffered for several years with chyluria, and had not been south of Baltimore. The urine was densely opaque, very chylous, and there was coincident hæmaturia, giving it a pink color. The blood reached me well preserved. Very careful examination of both the blood and the urine failed to reveal a single nematoid. I suggested the use of turpentine in the case, and the patient gladly tried it—twenty drops three times a day. Relief was very speedy, and in 1876 I saw the man apparently in perfect health and free from all trace of chyluria.

Case III.—Through the kindness of my friend Dr. H. G. De Hart, of Pleasantville, New York, I am able to give the following brief account of a well-marked case under his care: Miss E. H., æt. eighteen years. Previous to August, 1878, she was in perfect health. She had always lived at home, and had never traveled farther away than to come to New York for a day or two. From August to November, 1878, she complained of dull, heavy sensations in the occiput, dragging pains in the loins, sleeplessness, and a very obstinate constipation. During this time also she was passing chylous urine, though, from using the same night-vessel with several others, she did not suppose herself the victim, notwithstanding the unusual urine was observed. On Dr. De Hart's being called in, he suggested the use of a separate vessel, and found that she passed this remarkable urine—milk-white, devoid of urinous odor, slightly albuminous, of a specific gravity of 1·026, and very small in quantity.

Ten weeks of treatment with tonics, laxatives, diuretics, etc., proved useless in relieving her. Marked suppression was noted. A careful record was kept, and error excluded; yet for the ten weeks three ounces was the average daily excretion. Gallic acid, twenty grains three times a day, as recommended by general authors, was then tried. A speedy change followed. The urine increased to six ounces daily, its characteristic odor returned, and the milkiness began to fade. Her physical condition improved, and in less than six weeks her urine was normal in quality and quantity. Her headaches, backaches, and constipation disappeared, she became robust and well, and has since continued so. Specimens of the urine were preserved, and I have verified its chylous nature, though stale. Observations of the patient's blood while she was chyluric were not made by her physician, as comparatively few physicians are aware of Dr. Lewis's discovery. Yet, thinking it possible that, if by chance the patient had had filariæ sanguinis when sick, she might still retain some, as in Dr. Lewis's cases, I examined her blood and the preserved chylous urine some months after her recovery, but failed to discover any filariæ.

In reviewing these three cases, we see that two of the patients were chyluric without showing filariæ sanguinis, though in the last case their absence during the sickness can only be inferred from their absence afterward. The last two patients had neither of them been in hot climates, while the first one had acquired filariæ in Santa Cruz. Two were cured by turpentine; one by gallic acid. Turpentine as an anthelmintic and diuretic seems to me to be a rational and successful medicine. It might almost be thought, *a priori*, a prophylactic in filarious districts.

With regard to the emission of the tough mucous and blood-streaked masses ushering in the renewed chyluric attacks in my first patient, we seem to have a suggestion of the origin of the chylous outflow—as if a patch of altered mucous membrane of the bladder or kidney, underlain by dilated lymphatics and capillaries, had suddenly thrown off its covering, given exit to pent-up chylous lymph, and established a chyle-fistula.

Chyluria may, I believe, be much more frequent in our climate than is suspected from the absence of reported cases, and it remains to be proved whether the disease when contracted here is not independent of the filarious condition, as must be inferred from the last two cases noted. On the other hand, we can not be too careful to search for this new and startling cause of diseases of obscure etiology, especially in patients returning from other countries.

In the accumulating literature on this subject, the three best recent reviews to which the reader is referred are:

Cobbold, "Parasites of Man and Animals." London, 1879.

Bourel-Roncière, "Arch. de méd. navale," August and September, 1878.

Sir Joseph Fayrer, "Lancet," February 8 and 15, 1879.

THE PHYSIOLOGICAL TREATMENT OF WRY-NECK.

By ALLAN McLANE HAMILTON, M. D.,
CONSULTING NEUROLOGIST TO THE LUNATIC AND IDIOT AYSLUMS, NEW YORK CITY, ETC.

The electrical treatment of torticollis has been alluded to by many writers, but by none more intelligently than by Tibbits and Russell Reynolds. The former has had considerable success, but Reynolds thinks that the disease, when at all pronounced, is not amenable to either the galvanic or the induced current. He has found that by means of the induced current it is possible to overcome the deformity and preserve the equilibrium of the head, but that a short time after the electrodes are removed the malposition returns. Wilks advocates the use of faradization of the muscles of the unaffected side, and he, as well as Reynolds, has found greatly increased excitability of the affected muscle when it was subjected to stimulation with the faradaic current. In the case detailed by Wilks,* the galvanic current from thirty Daniell's cells produced contraction of the platysma myoides, but not of the affected sterno-mastoideus. The patient was not benefited in the slightest, and was discharged uncured.

The lack of uniform success in the cases reported and a realization of the fact that electricity is of such great use in so many other spasmodic affections lead me to believe that many more patients might be relieved if the treatment were directed with a view to meet the pathological indications, which after all seem plain enough. In the early stages, it appears that the anterior muscles of the neck are not primarily affected, but rather the trapezius, and at such a stage the electrization of the sterno-mastoideus seems unwise. In other cases the approximative galvanization of the spinal accessory is indicated, while in the confirmed cases, which by the way we see the most of, I am about to speak of a treatment which I am not aware has been described heretofore. I find no allusion to the simultaneous employment of the two currents for the production of their physiological effects.

In the early part of 1879 my attention was first called to their use by a patient who had been under the care of my friend Dr. Findlay, of Havana, and who had been greatly relieved. Knowing nothing of Dr. Findlay's plan of treatment, I began a series of experiments to determine the best form of application and electrode, and after some trouble devised a method.

An electrode was constructed, which is armed with two sponge-covered pads, one of which is connected with the *positive* pole of a galvanic battery of twenty cells, while the other is attached to the *negative* wire of an induction coil. The double electrode is to be applied at the back of the neck, the two plates forming the terminal ends of the galvanic and faradaic apparatus, and being insulated by a central plate of hard rubber. Any ordinary double electrode may be used, however, and will answer every purpose. The *negative* galvanic electrode is to be placed over the insertion of the sterno-cleido-mastoid muscle of the *affected* side, so that a descending current is sent through the contracted muscle, while upon the insertion of the muscle of the other side is placed a sponge-covered electrode attached to the *positive* wire of the induction coil. The antagonistic muscle is thereby subjected to the stimulation of an ascending current from the faradaic apparatus.

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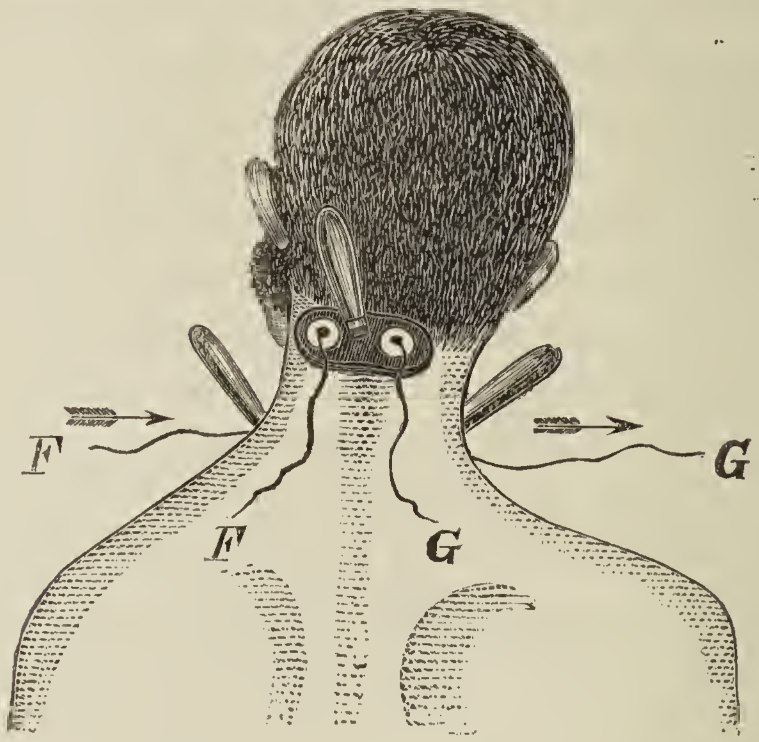
* "Diseases of the Nervous System," p. 455.



The treatment of these cases is suggested entirely by the physiological influence of the two currents upon muscular tissue. In wry-neck of the spastic variety there is of course on one side a condition of tonic spasm, while on the other side the antagonistic muscle is necessarily in a condition of lowered tone, subjected as it is to the strain imposed by the position of the head and by the unavoidable traction. It will be seen that the condition of the antagonist is worse even than that of an opposing muscle in some other part of the body where there is less mechanical strain or tension of parts, as in this case the weight of the head is a factor in the disease which prevents the opposing muscle from ever being properly subjected to the improving influence of treatment. A paralysis unaccompanied by contractures, and consequently with no permanent stretching of opponents, is, as we well know, much more readily improved by electricity if the strain be removed by proper appliances—such, for instance, as the apparatus devised by Van Bibber and Detmold for lead and facial paralysis. In the case of wry-neck, it must be borne in mind that, as no apparatus can be suggested which will do more than tire out the vicious spasm of the contracted sterno-cleido-mastoideus (a therapeutical measure which I consider to be unphysiological, from the fact that the spasm is an evidence of deficient or irregular innervation), a procedure which will tend to diminish the irritability of the muscle in spasm, while increasing the energy and improving the nutrition of the weakened opponent, is by far preferable.

In many cases, I am convinced, there is an hysterical element, which is decidedly increased by forcible restraint; and that this feature of the trouble belongs both to men and to women, I have no doubt. It is not difficult to imagine that harsh or irritating treatment will do harm in such cases.

My first case was one presenting the clonic spasms of a variety which is very stubborn and obstinate, and had lasted for several years. The patient had, in addition to the torticollis, a great deal of pain extending down the arm, much mental distress and insomnia, and an excessive degree of deformity, so that the head was drawn well to the left side, and the face looked to the right. The two currents, used in the way above specified, brought his head to the normal position, and it so remained for some time afterward. The operation was repeated several times a week, but the improvement was not constant, and the patient fell into other hands.

The second patient was so far improved by treatment in two months as to discontinue his visits. For six or seven months previous to August, 1879, he had suffered from a left-sided torticollis, quite obstinate, and of the tonic variety. His trouble had begun with soreness of the affected muscles and weariness, which his constant efforts to bring his head to its natural position aggravated. He had tried faradization alone without benefit; injections of atropia and cauterization, but without avail. Two months' use of the conjoined currents, employed for about ten minutes daily for six weeks, and then twice a week, resulted in a disappearance of the deformity. The patient at times held both of the lower electrodes, while my unoccupied left hand was pressed against the left side and back part of the head. No other treatment was used. Another patient, now under treatment, is being greatly benefited.

In the varieties of wry-neck connected with disordered movements, there are several methods of treatment in vogue, which are sometimes successful. The ether-spray, either mediate or immediate (in the one case applied to the back of the neck; in the other, to the muscles themselves for five minutes at a time), does good in some cases. In other cases the local injection of sulphate of atropia will markedly modify the spasm, while, in cases of great severity, decided doses of the tincture of gelsemium sempervirens will diminish the violence of the spasmodic condition. A case mentioned by Radcliffe was treated with hypodermic injections of Fowler's solution, and improved somewhat.

While I am not disposed to take the grave view of the prognosis expressed by Reynolds, it must be confessed that there are very many examples which are not permanently benefited. Under this head come those which are unquestionably varieties of spinal or cerebral sclerosis. I have seen a case of progressive muscular atrophy which had been mistaken for wry-neck. In cases of organic disease of the brain, the early history of the case and the connection perhaps with paralysis or contracture of the extremities show us that the case is not one of true torticollis. Exceedingly rare cases of tonic contraction are met with in which the essential condition is dislocation or disease of the cervical vertebræ. Then, of course, the prognosis is bad.

The cases most readily helped are those dependent upon rheumatism or hysteria, and in such the prognosis is highly favorable. In the latter form of trouble, one or two applications of the faradaic current are alone sufficient, and, if the diagnosis is certain, it will be found that a shower of sparks, derived from a Holtz machine, directed upon the muscle, will favor a sudden disappearance of the spasm.

ORAL CHANCRE: CASES AND COMMENTS.

By GEORGE HENRY FOX, M. D.,
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Syphilis is not always a disease of venereal origin. It originates in some unusual and perhaps innocent manner with far greater frequency than is generally imagined. Such a mode of origin is to be found in chancre of the lip and of the oral cavity. This accident, though by no means rare, is of such infrequent occurrence as compared with genital sores that it is liable to pass unheeded, or to be mistaken for some comparatively trifling lesion. Without doubt many cases of syphilis, occurring in those whose statement that they have never had impure intercourse or suffered from any suspicious sore upon the genitals is entitled to full credence, are cases which have originated in an oral or other extra-genital chancre. In the practice of one unaccustomed to the study of syphilis in its varied forms, and especially in a case where the patient has a high social position and a character calculated to disarm suspicion, an error in the diagnosis of an oral chancre may be pardonable. Still the mistake is none the less unfortunate.

Upon the immediate recognition of such a lesion depend in some degree the reputation of the physician and in great degree the health and future happiness of the patient. The case demands specific treatment, if not at the outset, at least as soon as the first constitutional symptoms occur, and before they would be apt to be recognized if neither physician nor patient were in expectation of their occurrence. Furthermore, the safety of other members of the family liable to contract the disease in accidental ways is jeopardized when a patient has a labial chancre, for instance, and is allowed to remain in ignorance of the nature of the affection. In such cases of acquired syphilis, the innocent too often suffer for the guilt of others. Among rich and poor may be found the victims of accidental disease, but it is chiefly in the latter class that syphilis is permitted to infect a series of innocent persons through oral chancres which pass unrecognized and un-treated. The following history will show how a whole family may be made to suffer:

A patient at the New York Dispensary presented an eruption, evidently syphilitic, though of unusual appearance and distribution. My notes run as follows: October 22d.—Syphilitic papules, mostly lenticular, many being quite small; especially numerous in the axillæ, the bend of the elbows, the popliteal regions, and around the inner malleoli; a few on the forehead, and a number of small crusts on the scalp. On the arms some of the papules are scaling, while on the body a few are covered with thin and lightly adherent scabs. The inguinal glands are very slightly if at all affected. There is swelling of the posterior cervical glands, and the right epitrochlear is quite prominent. The submaxillary glands, which are now enlarged and indurated, have, the patient says, been very much swollen. No angina at present, although the throat was sore about six weeks ago. A mucous patch, healing, is seen on the left side of the upper lip, but no induration can be felt here or anywhere about the genitals. There are a number of red spots upon the glans penis and upon the inner surface of the prepuce, one of the spots on the glans being superficially ulcerated, but not at all indurated. The patient feels "heavy" and "dull," and says the eruption made its appearance a month or more ago. In this case syphilis was undoubtedly the cause of the eruption, but the site of the initial lesion was not immediately apparent. Closer examination revealed a dark-red patch on the gum, below the left lower incisors, which, according to the patient, had been swollen and hard for two months or more previously, and this condition had preceded the swelling of the submaxillary glands, which he first noticed on the left side. A diagnosis of oral chancre was now made, and, as the patient's little daughter, eight years old, had also come to the dispensary with an eruption on her body, I took the opportunity of examining her. She was pale, and had some sores at the corners of her mouth, and a large ulcerated patch on the inside of the lower lip. The fauces were reddened, and the submaxillary glands were enlarged, as were likewise the inguinal glands. Upon her body there was a fading lenticular papular syphilide, some of the papules being scaly, and others, as on the forearms, having disappeared and left pigmented macules. Her health was impaired, and, according to her father's statement, she did not look or act as she had done before. Here evidently was a second case of syphilis resulting from an oral chancre. I now made a prying examination into the affairs of the family for the preceding year, and learned that about eight months before they had had a boarder, a woman, who had whitish sores on her lips, and had complained to the patient's wife of suffering from "piles" (condylomata lata?). She was accustomed to play with and fondle the patient's little son, two years old, who soon got a sore on his tongue, with lumps in the neck, and afterward had a copious eruption on the body. This little patient had been treated by Dr. Morrow at the dispensary, and, upon referring to his case-book, I distinctly remembered having been asked by Dr. Morrow to look at the child, who had a specific eruption on the body, especially well marked upon the buttocks, which at that time we supposed to be a manifestation of hereditary disease.

Next, the wife and mother, who was pregnant at the time, acquired a sore mouth, with submaxillary swelling, followed in a month or so by spots over the body. Then the daughter, eight years old, became infected, as already described, and lastly the father. The mother had been confined a few days before my first examination of her husband, and, though very weak, she had, it was said, "a nice, healthy boy." November 21st.—To-day the mother came to the dispensary at my request, and exhibited a coppery papulo-squamous eruption, disappearing on the body, but especially well marked about the wrists. The baby, five weeks old, was covered with a papular eruption, which had appeared suddenly four days before, and had spread rapidly from the head over the whole body. The infant soon died, and what this family suffered, through no fault of their own, but merely from the unfortunate circumstance of having kept a syphilitic boarder, the reader can readily imagine. A few such instances of wholesale infection come to our notice now and then, but scores doubtless are constantly occurring in the lower walks of life, of which no record is made, no history written.

While it is always important to recognize oral chancre, it must be said that it is not always an easy matter to do so. Extra-genital chancre on other portions of the face is much more readily recognized, since the question naturally arises, If not a chancre, what can it be? In the oral cavity and on the lips, however, superficial ulceration and a certain amount of inflammatory swelling and hardness may arise from such a variety of causes that often the nature of the trouble is not suspected until later and more striking manifestations of syphilis present themselves.

A year ago a married gentleman, aged thirty-one years, was sent to me by a physician of this city, with the request that I should make a diagnosis of the skin-disease from which he was suffering. Upon examination I found him to have a well-marked papular syphilide, a slight induration occupying the site of a recent excoriation upon the prepuce, and a very suspicious indurated and somewhat painful swelling upon the right side of the upper lip. There was no doubt about the patient having syphilis, although it was difficult to say at once where the initial lesion was seated. His physician had noticed and remarked upon the syphilitic appearance of the eruption, and would have made the diagnosis, but, here was the rub —just where it so frequently occurs—the patient declared that he had had no connection with any one but his wife, who was at that time apparently well and above suspicion. Convinced that the patient must have contracted the disease in some way, I questioned him very closely, and elicited the admission that about four months before he had on repeated occasions kissed a woman of easy virtue, who, as he distinctly remembered upon calling the circumstance to mind, had a sore mouth. Soon after this a sore appeared upon his lip, and he squeezed out a little blood; hardness of the sore supervened, and a month or so later he became sick and weak, and had pains in his joints and bones both day and night. The present eruption, he said, appeared two weeks before I saw him.

This case shows the importance of recognizing syphilis by merely observing the objective symptoms of the disease, and by asking questions for the purpose of verifying rather than for the sake of establishing the diagnosis. It illustrates moreover the proneness of a patient, who would seek medical advice for the slightest scratch upon the penis, to regard a labial chancre as an insignificant though a troublesome lesion.

Oral chancre generally attacks the lips. It may be wholly seated upon the vermilion surface, or it may encroach upon the adjacent skin. When the chancre is situated upon the inner or mucous surface of the lip, it usually presents a smooth or eroded surface, while on the contrary, if seated on the outer or cutaneous portion, it is commonly incrusted. Very often a chancre will present a crust upon one half of its surface, viz., that portion which is exposed to the air, while the remaining half, which is kept moist, will appear smooth. There seems to be little difference in the frequency with which the respective lips are attacked, although statistics seem to indicate that in men the upper lip, and in women the lower lip, is more frequently the seat of the lesion. It is certain that the lower lip is the more subject to abrasions and fissures, which would render it prone to become infected. Labial chancre may vary in appearance according to its position on the lip, its stage of development, and the general health of the patient. Marked swelling and induration, with superficial erosion or crusting, are its characteristic features.

Chancre upon the gum is extremely rare. In Jullien's compiled lists we find that, among seventy-three oral chancres, fifty-six were on the lips, ten upon the tongue, four in the mouth (without further specification), two on the uvula, and one on the gum. When chancre affects the tongue, it is commonly seated, as would naturally be expected, upon its tip. The occurrence of chancre in the deeper portions of the oral cavity has been questioned and even denied, but cases have been reported by competent observers of chancre of this region occurring in the persons of nurses, glass-blowers, and others. There is no reason why the syphilitic virus should not be carried in a variety of ways to this locality, and there is no proof that this or any other portion of the body possesses any insusceptibility to syphilitic infection. Doubtless, mistakes in the diagnosis of deep oral chancre have occurred, and patients presenting these rare and unique lesions of syphilis should be subjected to a most rigid examination.

At a meeting of the New York Clinical Society held in October, 1879, Dr. F. P. Foster mentioned the case of a gentleman in whom the initial lesion of syphilis occurred on the tonsil, the mode of infection being unknown. Early in the summer the gentleman had come to him with a "sore throat." He found the right tonsil swollen and red, as well as the right side of the velum. Under the angle of the jaw, on the right side, there was a hard glandular swelling, as large as an almond. The throat got worse, and an ulcerated lesion appeared and *persisted* on the right tonsil. This lesion, with the enlargement of a number of lymphatic glands which soon followed, aroused his suspicion as to the nature of the disorder, and in a short time this suspicion was confirmed by the appearance of a roseola and of mucous patches on the lips. The swelling of the gland under the angle of the jaw continued all summer.

In the ensuing discussion, Dr. L. B. Bangs mentioned a case in which the initial lesion was situated on the gum at the root of a tooth. There was no ulceration, but the lesion was elevated, purple, not indurated, but very persistent, accompanied by the presence of an enlarged gland under the jaw. Subsequently other glands became enlarged. Then for some weeks there were no other symptoms. Within the ten days preceding the report he had had fever, malaise, and secondary pains. Mercury had much improved his symptoms. This man's mistress had been repeatedly examined without the discovery of any syphilitic lesions. Two friends of his, with whom he frequently associated, had mucous patches in the mouth. The patient himself had the habit of putting lead-pencils in his mouth, and it was thought that the inoculation of the gum had been brought about in this way.

The lymphatic engorgement accompanying oral chancre is generally marked, and is of the highest importance, since by its presence the character of the sore is often diagnosticated. The neck is usually affected chiefly upon one side, although glands upon both sides may be swollen. When the chancre is near the median line, this is very apt to be the case. Labial chancres are attended with swelling and induration of the submaxillary glands, those near the angle of the jaw being usually involved by a chancre of the upper lip, while in a case of chancre of the lower lip the glands beneath the chin are generally affected. When any lesion of the lip or oral cavity becomes indurated, and is accompanied by swelling of the submaxillary or cervical glands, the possibility of its being a chancre must always be borne in mind. A positive diagnosis can not always be made at once without risk of error, but the persistence of these symptoms is an almost infallible indication of oral chancre.

A NEW DESIGN FOR A SPRAY-PRODUCER.

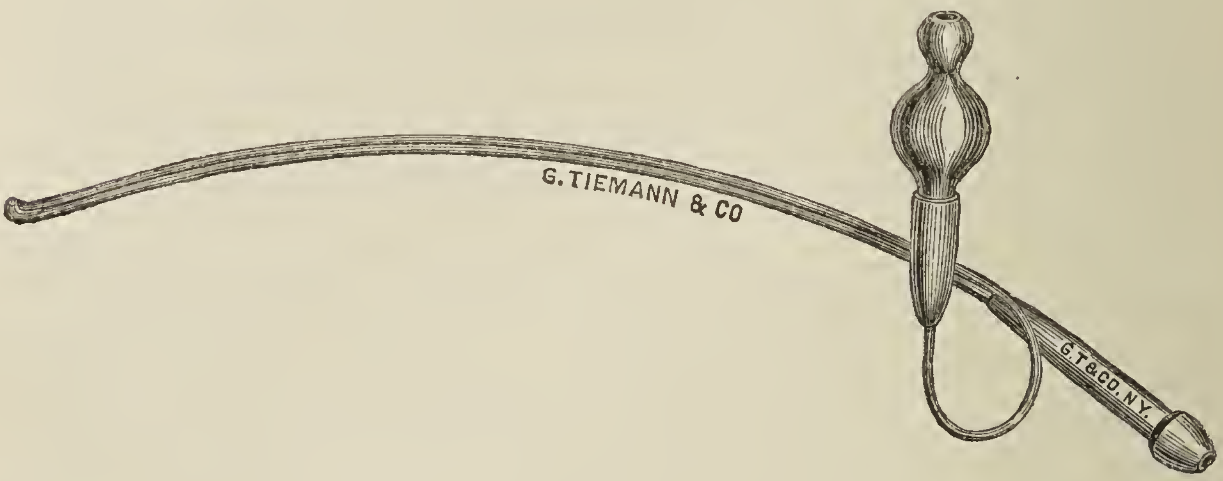
By W. F. FLUHRER, M. D.,
NEW YORK.

The instrument shown in the woodcut, for applying solutions in the form of spray to the pharynx and posterior nares, was devised to correct some defects of those in present use.

The various forms of spray-producers may be divided into three classes, according to the manner in which the liquid is brought in contact with the jet of air forming it into spray: First, those in which the liquid is sucked through one tube by the current of air expelled across its open end from an opening in another tube; second, those in which the liquid, by pressure of air upon its surface, is forced through one tube to its open extremity, and there formed into spray by meeting the air escaping from a second tube; third, those in which the liquid flows by gravity to the jet of air.

On account of the great irritability of the fauces it is important, for a thorough application of the spray, to be able to shoot it against the affected parts, to surprise them in an attitude favorable for medication. In using the spray-producers of the first class, the pharynx is warned of the intended application by the current of air that precedes the formation of the spray. In using the instruments of the second class, the pressure upon the liquid contained in the reservoir can not be initiated or withdrawn suddenly enough to prevent the throwing of coarse drops at the beginning or end of the operation.

In operating with the instruments of the third class, in which the liquid gravitates to the opening in the air-tube, the spray is not preceded by a current of air; it can be formed instantly and checked abruptly. These instruments are, however, made of glass, and are, therefore, necessarily somewhat bulky, while their tips are very fragile. By making the instruments of silver instead of glass their bulk can be much reduced and their durability increased. The silver instruments are not easily corroded, provided they are cleaned each time after they are used. One that I have used constantly for more than two years, sometimes with strong solutions of nitrate of silver, has never been repaired, and is still in good order. The metal instruments have also the advantage of flexibility. The reservoir for liquid placed near the distal end of the instrument obstructs the view, and is liable to be brought in contact with sensitive parts in operating through a narrow faucial opening. By placing the reservoir near the proximal end, these objections are obviated.



The instrument figured in the cut is shown at a little more than half its actual dimensions. It consists of two tubes and a small reservoir. The tubes are made of virgin silver, and are mounted one above the other. They are so slender that they can be passed by way of the mouth through the narrowest passage to the pharynx. The instrument depicted is for throwing the spray from behind forward upon the parts presenting in the posterior nares, and can be passed along the floor of the nose with no more difficulty than a small probe. One of the tubes conducts the fluid from the reservoir, and the other the current of air. One end of the air-tube is expanded, to make a tight joint with the rubber tube connecting it with the hand-bulb that supplies the blast of air. The other end has an opening facing in the direction to be given to the spray. On account of the small caliber of the tube leading from the reservoir, the liquid flows only slowly through it. This is an advantage. The instrument can be inclined without the column of liquid falling suddenly back into the reservoir; consequently, the dripping of liquid from the end of the instrument upon healthy parts can be prevented, and, at the same time, the spray formed coincidently with the current of air. By making the liquid viscid its flow may be further retarded. Glycerine added to a solution answers this purpose, and gives a finer spray. The bend formed by the tube where it enters the reservoir makes a convenient handle to the instrument. The reservoir is made of yellow glass, and is cemented into a socket firmly secured to the liquid-tube which pierces a cork plugging the lower portion of the reservoir. Above its principal expansion the reservoir is constricted, to prevent spilling of its contents. Above this constriction is a second expansion, corresponding in shape and size to the bulbous end of the air-tube. The reservoir is charged by means of a dropping tube.

To clean the instrument, the end of the rubber tube of the hand-bulb is slipped over the upper expansion of the reservoir. A blast of air empties the reservoir and tube of liquid. The reservoir is then charged with water, and emptied again in the same manner. A current of air forced backward through the liquid-tube into the reservoir will clear it of its contents.

These instruments, to throw the spray upward, downward, forward, and backward, are manufactured by Messrs. George Tiemann & Co.

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Lectures.

A CLINICAL LECTURE,

By ALFRED L. LOOMIS, M. D.,
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(Reported for the New York Medical Journal.)

PART II.

CHRONIC DIARRHŒA IN A PATIENT EXPOSED TO THE RISK OF LEAD-POISONING.

Our next patient is a man thirty-five years of age, who says that he was taken four weeks ago with a diarrhœa, which has continued up to the present time. When it commenced, the discharges, which from the first were watery, contained some blood, and he suffered a good deal from straining and bearing-down at stool. He also suffered from pain in the abdomen, and this still troubles him to a considerable extent. This is not constant, but comes and goes, and sometimes is very severe. Before his present difficulty his bowels were always regular. During the past month, he says, he has lost a great deal of flesh.

The passages continued bloody for about a week. Almost all cases of chronic diarrhœa, and particularly those contracted in malarious districts (which, indeed, constitute the great majority of them) are really instances of dysentery, or else of catarrh of the whole intestinal tract. On inquiring the man's occupation, we find that he is a painter, and that he has followed this trade for the past twelve years. As a general rule, painters suffer from constipation; but, if they once get diarrhœa, it is apt to be a difficult matter to get rid of it. In such a case as this we naturally look for evidences of lead-poisoning; but here they seem entirely lacking, unless there may possibly be a very faint line of discoloration along the gum of the lower jaw. There is no palsy whatever about either hand, as you perceive that he moves his wrists, fingers, and thumbs in a perfectly normal manner.

Six years ago, he says, he had a genuine attack of painter's colic. When his present trouble commenced, however, he took cold from exposure, as in his work he is obliged to be out-doors as well as in the house. As a general rule, I may remark that colic precedes lead paralysis, which usually affects the thumb or the wrist principally.

We will now have the patient lie down, so that we can make an examination of his abdomen. When asked to place his hand on the spot where he experiences the most pain, he indicates the umbilical region; and it is a fact that in the vast majority of cases of painter's colic the pain is located either about the umbilicus, or at a point midway between that and the crest of the ilium. We have, therefore, to decide whether the pain here is due simply to catarrh of the intestinal tract or to the effect of lead which has been taken into the system upon the muscular tissue of the intestines. The reason that there is so much pain in lead-poisoning is because this substance has the property of producing muscular paralysis, and, when this is situated in the intestines, it interferes with the peristaltic motion. Hence gases accumulate above, and it is the presence of these which gives rise to the colic. As a general rule, the paralysis shows itself in the small intestines in the neighborhood of the umbilicus. So in peritonitis one of the great causes of pain is the arrest of peristaltic action in the intestines by the inflammatory process. In the present instance, however, there is no evidence whatever of there having been any peritonitis.

This, then, is a case of chronic diarrhœa commencing in acute dysentery; and I am free to confess that I do not think that the presence of lead in the system has anything to do with it. I incline to this opinion because in my experience such a diarrhœa is not ordinarily caused by lead-poisoning unless the system is very profoundly affected by it, which is certainly not the case here. Not infrequently in those suffering from lead-poisoning (and especially where it is extreme enough to cause such diarrhœa), there is a well-marked renal complication; the form of disease being interstitial nephritis, with an abnormally large secretion of urine. In this case, however, the patient presents no urinary symptoms whatever.

The conclusion that we arrive at, hence, is that we have here a simple catarrh of the intestines. From the fact that the patient never has any blood or pus in his passages, at least so far as he knows, we judge that there is at present no ulceration of the bowel, which is very apt to occur in the course of such an affection.

As regards treatment, the most important point to be observed is rest—absolute rest. Next in importance comes the matter of food, and, as this patient says he can take milk perfectly well, he will be placed on an exclusively milk diet for the present. Medication is by no means of so much consequence as these measures, but should not be altogether neglected. As for opium, I have never found it of the slightest permanent benefit, although it sometimes answers a temporary purpose very well. Astringents are of more service, but must be managed with the greatest care. I have not much faith in the ordinary ones, such as catechu, kino, and rhatany, but what I have found the most useful of all in such cases as this is an astringent combined with an alkaline water, and the best agent of this kind that I know of is the Rockbridge alum spring water of Virginia. During convalescence we usually give the patient such articles as will go to make fat and blood, and I have often found cod-liver oil very beneficial under such circumstances.

CHRONIC PERITONITIS, WITH PERIHEPATITIS.

Our last patient to-day, gentlemen, is a man, fifty-two years of age, who gives the history of having received an injury in the abdominal region about fifteen years ago, which resulted in a hernia. He is a laboring man by occupation, and he pursued his ordinary work after this without any inconvenience until about six months ago, when he began to suffer pain at the seat of the hernia. The only trouble that he ever experienced in regard to his bowels before this time was that certain kinds of food, especially soups, were apt to produce diarrhœa. Ordinarily he had one passage regularly every day. This pain of which he speaks did not come on with great violence at first, and he has been able to attend pretty regularly to his usual work up to five or six weeks ago, although suffering more or less pain a great part of the time. He was obliged to give up finally on account of the increasing pain and weakness.

When the pain commenced, six months ago, he procured a truss, which he has continued to wear up to the present; and since that time, he says, his bowels have been for the most part constipated. He sometimes goes three or four days, or more, without an evacuation. Up to three weeks ago he was in the habit of taking medicine for the constipation; but he very often vomited it, and the vomiting rather aggravated than relieved his pain. Since then he has been using enemata. Of late he has also suffered some distress in passing his water. Before proceeding to make a physical examination, I may remark that the patient denies ever having been addicted to intemperate habits, although he has not practiced total abstinence.

In the first place we notice that he is to all appearances a very sick man; and, now that he is stripped to the waist, we find that he is extremely emaciated. Directing our attention to the abdomen, we see that he is still wearing a truss, and, moreover, that it is a double truss; in explanation of which he says that six or seven months ago he noticed that he was ruptured on the right side too—the original hernia having been on the left side. The truss having been removed, there is apparently no swelling or tumor in either groin; but when he has been made to cough, you observe that there is a considerable prominence on both sides. One can place the finger in either external abdominal ring, and when the patient coughs an impulse is felt.

On making palpation, we find that there is very marked tenderness all over the abdomen, and that light pressure at any point on its surface seems to occasion him as much pain as when more force is used. Furthermore, we discover that there is a decided feeling of hardness in the upper and middle part of the abdomen on the right side, while below and to the left it is more yielding. The first thing to decide is as to the boundaries of the liver. By means of percussion and palpation, which I practice as carefully as possible on account of the pain which it occasions the patient, I find it extends downward to about the level of the umbilicus, that it is also enlarged in an upward direction, and that it reaches further to the left than normal. At times the great rigidity of the abdominal muscles, which results from the tenderness of the parts, gives one the impression that there is a solid body in the lower part of the abdomen also; but even then the feeling to the touch is very different from that which we meet with over the region occupied by the liver, and it disappears, to a great extent, when the patient draws up his knees and endeavors to relax himself as much as possible. This rigidity of the abdominal muscles, however, renders it very difficult to tell whether the surface of the liver is really smooth or rough.

The whole contents of the abdomen seem to have a doughy feel, such as we should be liable to meet with if the intestines were matted together by adhesive inflammation. There are, however, no evidences whatever of fluid in the abdominal cavity. The extremities are quite cold, the circulation being bad, and the pulse is a very peculiar one. This is due to the cord-like hardness of the arteries, which we find wherever we can place the fingers upon one, and is an unnatural characteristic. There is no history of gout or rheumatism, as far as I am able to ascertain.

In making an examination of the thoracic organs, we notice first a bad conformation of the chest. On percussion there is no difference between the two sides, but in both we find that there is some loss of vesicular quality, as though there might be a little emphysema present. Auscultation shows also a slight loss of vesicular quality in the respiration, and that expiration is a little prolonged. These signs are not sufficiently marked, however, to indicate any trouble on that score, and the patient says that he has never had any cough of any account. The heart would seem to be slightly enlarged, but is otherwise normal; and there is no anæmic bruit. The tongue is not dry or red; but is seen to be covered with a brown coating. He gets weak after standing on his feet for a little while, and says he is able to walk only about two blocks.

The question now arises, What is the diagnosis? Some one I hear suggests, "Malnutrition." Evidently the man is suffering from malnutrition; but what is the cause of this? "Waxy liver," suggests another. This is hardly probable, because there is no history of any long suppurative process in the case, and the patient, as far as we can make out, has never had syphilis. The fact, which I may mention in this connection, that he has had a large family of healthy children would also seem to throw the idea of syphilis out of the question.

In making up our minds in regard to the probable nature of the case, let us not lose sight of the main facts of the history. For a number of years the man had an inguinal hernia which did not give him any trouble until six months ago, when he got a truss for it. Before this period his bowels were always regular; but since then he has suffered a great deal from constipation. Now, one of the great causes of constipation, as you know, is arrest of the peristaltic action of the intestines. This may be due to a paralysis resulting from blood-poisoning, which may produce a stricture of the intestines; but this is not at all likely to occur without the presence of symptoms of intestinal catarrh or ulceration, unless, indeed, it is caused by cancer. Here I could not find any cancerous nodules about the patient's bowels; but it is nevertheless true that he has the appearance of one suffering from this disease.

Another very common cause of arrest of peristaltic action is chronic peritonitis. This may either depend on the presence of cancer in the intestines or else arise from the extension of an inflammatory process from some other organ. In females it is most apt to come from the uterus and ovaries, and in males from the liver. In the present instance I think we can explain the case thus: Before the patient put on the truss, a localized peritoneal inflammation had commenced, and this was no doubt aggravated to some extent by the instrument. This continued as a low form of peritonitis, in which there was marked hyperplasia of the connective tissue, but no exudation of fluid. The intestines then became matted together, and at length the inflammatory process (still of the same low grade) extended up to the liver, giving rise to perihepatitis, with thickening of the capsule. In the mean while the patient gradually grew worse, and the constipation, which medicines seemed to have but little effect upon (often, indeed, being vomited as soon as they reached the stomach), became so obstinate that relief could be obtained only by means of enemata. Of course these would affect the lower bowel alone, the accumulation going on increasing above. Of late he has begun to suffer from urinary symptoms also.

These cases of peritonitis without acute symptoms are not uncommon. As to the putting on of the truss here, that was merely an accident, and probably had not very much effect upon the process. In the other forms of peritonitis, such as we meet with in connection with cancer or tubercles in the abdomen, there is effusion of fluid into the cavity. Still, it is possible to have cancer in this part without ascites, and the possibility of there being a cancerous neoplasm in the walls of the intestines here (which we have not been able to detect) is the only thing that occurs to me that could be likely to conflict with the explanation of the case which I have given above. Obstruction of the bowels from peritonitis, I may say in conclusion, is in nine cases out of ten found in the small intestine.

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Editorials.

ASYLUM ABUSES.

Not a little stir has been made in the profession in this city by the recent action of a few physicians, in conjunction with several clergymen and other citizens, to enlist the coöperation of the general public in an expression of indignation at the system of asylum management which prevails among us. We can not but think that this action was ill-advised, and we can only view it as an additional exemplar of the fatal facility possessed by medical men of making a poor show before the community at large. We attach very little weight to the dispute which has arisen as to whether the call for the public meeting bore the names of some gentlemen without due authorization. Neither do we feel called upon to investigate the motives upon which the promoters of the movement acted. They have, so far as we know, done nothing unlawful, and therefore there is no occasion to drag the question of motives into the discussion. But they have, in our opinion, done an unwise and harmful act in seeking to make a lever of public agitation wherewith to act upon a system that they might better have attacked otherwise.

Doubtless there are defects, and perhaps abuses, in many of our asylums, for nothing human is perfect. We trust, however, that such defects or abuses need only be pointed out in a proper way to insure their correction—provided, of course, that they are real, palpable, and manifest. And certainly none others, and not even such save as a last resort, should be paraded before the general public. We can scarcely conceive that our asylum system includes abuses of a character to warrant the calling in of the arts of rhetoric to inflame the public mind. Some of the features in our system have been pointedly criticised of late by a distinguished English alienist, who spoke with a due knowledge of the facts and in the kindest imaginable spirit. We have never heard that these criticisms were unkindly construed, as they certainly would have been were our superintendents men who had not the good of their patients at heart. They bore upon matters of judgment, not of motive. We can readily understand that there should be differences of opinion among enlightened and kind-hearted men as to the amount of bodily restraint needed by violent lunatics, but that "the Utica crib," the strait-jacket, and other devices of the sort should be dwelt upon, and their supposed horrors depicted with all the cunning of oratory, before a miscellaneous assembly, we look upon as a piece of recklessness little short of criminal. Think of its effects upon the anxious relatives of asylum inmates—of what unutterable anguish they must undergo at the thought of their poor kindred, whom their fancy is thus prompted to picture as subjected to strange acts of barbarity, of the very nature of which they can form no definite idea! Bear in mind that these relatives are themselves often predisposed to insanity, to whose outbreak they look forward with gloom and dread. Well may such harrowing harangues precipitate the attack. This has actually taken place, as the direct result of the movement we are writing of, in one instance that has come to our knowledge. Doubtless a lesser misfortune more often results, namely, the withdrawal from asylums of patients whose interest would be far better served by their continued stay in those retreats.

It is not our present purpose to discuss the faults of our asylum system. Such as they are, they attach to the system itself—especially to that feature which makes executive work figure so largely in the superintendent's duties, rather than to the personal character of the medical officers. We believe that these gentlemen are, as a rule, admirably qualified for the arduous and, to most men, very distasteful task which they have undertaken ; that they appreciate and are disposed to profit by legitimate criticism ; but that they should be protected by the whole moral power of the profession against such movements as this that we have felt called upon to show our disapproval of.

A HIBERNATING SOCIETY.

Several years ago the New York Medical Journal Association was organized in this city, with certain special features which made it, in its day, very profitable and pleasant to belong to. Its leading purpose was to maintain a reading-room, open to its members every day and evening, and supplied with all the considerable medical periodicals, both American and foreign. Once a week, except during the hot months, regular evening meetings were held—"Friday evening reunions," as they were called—at which a paper was usually read, and discussions held either upon the paper or upon oral communications. These meetings were all the more profitable from the fact that no business matters were introduced—all the business of the association having been delegated to a board of directors.

The association was prosperous almost from the very beginning. One was not likely to seek in vain in its reading-room for a file of any medical periodical of value in the English, French, German, Italian, or Spanish language. As it grew in years, it accumulated the volumes of these publications, and acquired by purchase or by gift many valuable sets of back volumes. At one period, too, it possessed a respectable stock of other than serial works, and its name was accordingly changed to the Medical Library and Journal Association. These works were afterward sold, however, and the association once more changed its name to the Medical Journal Association of the City of New York. About this time its stock of journals was found to have outgrown its apartments, and a floor was leased for the association in the building that had then been recently purchased by the Academy of Medicine. The Academy had now entered upon a new phase of its existence. Before, there had been little beyond its ambitious title to distinguish it from various other societies. Now, however, its previously latent library was displayed upon actual shelves, and made to serve the purposes of its Fellows. This being the case, the special need for the Journal Association ceased to exist. It was indeed hard for some of us, who loved the association, to realize this fact; but many of us were also Fellows of the Academy, and at last it became apparent to all that it was simply throwing away money to maintain two like collections of journals, both housed under one roof. The result is, that the Medical Journal Association has conveyed to the Academy of Medicine all its journals and library property, in consideration that the Academy shall admit to Resident Fellowship all such members of the Association as are now or may become eligible and are elected to membership under the present by-laws of the Academy of Medicine, the Academy to receipt in full for the initiation fee and annual dues for 1880; and also for the dues for 1880 of the present Resident Fellows of the Academy who are also members of the Association, provided they request the same in writing. The Academy also agrees to establish for its Fellows as soon as practicable a circulating department for medical journals on the plan heretofore practiced by the Journal Association, and to cancel the unexpired lease of the rooms.

Thus the Medical Journal Association ceases to pursue its work, but it nevertheless keeps up its organization, and doubtless annual meetings will be called (and held if a quorum can be brought together) for the election of officers. We are not told that dues will be collected, committees appointed, etc. The association has served as the prototype of several like bodies in other cities, and, if it never emerges from its trance, this consideration alone will keep its memory green.

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Reviews and Literary Notes.

The Pathology and Treatment of Venereal Diseases. By FREEMAN J. BUMSTEAD, M. D., LL. D., etc. Fourth edition, revised, enlarged, and, in great part, rewritten by the Author and by ROBERT W. TAYLOR, A. M., M. D., etc. With one hundred and thirty-eight wood-cuts. Philadelphia: Henry C. Lea, 1879. Pp. 835.

UPON its first appearance in 1861 Dr. Bumstead's treatise at once took the lead among books devoted to the comprehensive consideration of diseases of venereal origin. It has ever since held that position. This it has done by virtue of the author's ceaseless industry in continually laying under contribution, for successive editions, fresh fields of literature and a constantly augmenting and ripening personal experience. The work could never be justly called a mere compilation, for, while a great share of its value lay in its having opened to the profession at large the sealed book of French research, the latter material was so arranged and systematized by Dr. Bumstead as to be most readily grasped and assimilated by the Anglo-Saxon reader—so tempered and pervaded by the author's rare common sense and powers of generalizing, that it stood forth a model of medical book-making—thorough and well balanced; a chart for the investigator and a guide for the practitioner. The later editions have drawn more largely from other than French sources, and it may be said of the present volume that nothing of value in any language has failed to receive due consideration in its pages.

Dr. Bumstead has ceased his labors. Fortunately the association of Dr. Taylor in the authorship of this edition warrants our looking forward to a continued exertion of the same sort that has made the book what it has been in the past. Dr. Taylor's phenomenal powers of observation and analysis are to be seen, indeed, pervading the whole work, and it seems a matter for congratulation that no attempt was made to separate the work of the one author from that of the other by such devices as foot-notes, brackets, or the like—devices which usually disfigure a book, lead to needless repetition, confuse the reader, and sometimes present the unwelcome picture of a house divided against itself.

The fourth edition is notably enlarged, having a greater number of pages, and being printed in smaller type. The *Introduction*, however, has been curtailed. It deals chiefly with historical questions and doctrinal points. Concerning the question of "dualism" the authors thus express their conclusions: "The chancroid is entirely distinct from syphilis. The chancroid, however, does not depend upon a specific virus of its own, incapable of being generated *de novo*. The chancroid, in most cases met with in practice, is derived from a chancroid, but it may arise, especially in persons debilitated by any cause, from inoculation of the products of inflammation, either simple or syphilitic, and subsequently perpetuate itself from one individual to another as a chancroid. The simultaneous inoculation of the syphilitic virus and of the products of inflammation gives rise to the 'mixed chancre,' and explains the different degrees of ulceration which the initial lesion of syphilis is liable to assume."

In the treatment of urethral gonorrhœa in the male, what may be called the *technique* of urethral injections is more fully treated of than in previous editions, and indeed throughout the work instrumental manipulation is quite thoroughly considered. The "expectant" treatment of gonorrhœa, as taught by Fournier, Diday, and others in France, is dealt with from a common sense point of view, the section closing with an *argumentum ad hominem*.

The chapter on balanitis has been extended, the added matter relating chiefly to the complications and to points in diagnosis. The former consist of phymosis, paraphymosis, lymphangeitis (which the authors call "lymphitis"), inguinal adenitis, and a general inflammation of the penis, for which latter it seems a pity that they could find no better term than "penitis." Many little points in the operation of circumcision will be found well presented in the chapter on phymosis —points which may seem trivial to the general reader, but which are of a kind to constitute the difference between good and bad surgery. Several new devices are given for effecting reduction in cases of paraphymosis. In this part of the work there are added chapters on "folliculitis and peri-urethral phlegmon," "affections of the corpora cavernosa," and "lymphangeitis and adenitis."

The therapeutics of swelled testicle is considerably amplified in the new edition. When the element of epididymitis has been made to subside, but more or less fluid has been effused into the tunica vaginalis, is "the golden opportunity of giving almost instantaneous relief" by Velpeau's method of multiple puncture. Pulsatilla has been used in a number of cases of epididymitis with very good effect, but, Dr. Bumstead remarks, it sometimes fails. Diday's ice treatment does not generally suffice; unless it gives relief within two hours, it should be discontinued. Hydrocele, hæmatocele, varicocele, inflammation of the seminal vesicles, and gonorrhœal peritonitis and sub-fascial abscess in the male are treated of in added chapters.

The chapter on gonorrhœa in women is enriched with more special consideration of gonorrhœa of the uterus, vegetations, oöphoritis, methods of local treatment, and a review of Dr. Noeggerath's theory of "latent gonorrhœa in women"—a theory to which Dr. Bumstead deals a hard blow in the following: "It is a little singular that Dr. Noeggerath did not perceive the fallacy of reasoning on the principle of *post hoc ergo propter hoc* in these cases. He explicitly states that he believes with Ricord that 800 out of every 1,000 men have had gonorrhœa. Let us then apply the same reasoning to 1,000 women, who have remained healthy after their marriage, and who have 'replenished the earth' with many quiverfuls of offspring. Eight hundred of their husbands must have had gonorrhœa at some time in their lives; hence gonorrhœa is greatly conducive to fecundity!"

Further added chapters treat of gonorrhœa of the rectum, the mouth, the nose, and the umbilicus, of herpes progenitalis, and of sexual hypochondriasis.

Eighty-three pages are devoted to stricture of the urethra. Strictures are classed as spasmodic (instead of "transitory," as in former editions), and permanent or organic. The antithesis would have been sharper between transitory and permanent, or between spasmodic and organic. Dr. Bumstead has never met with the chronic spasmodic stricture described by Dr. Otis, and does not admit the existence of "spasm lasting through years." He thinks that further investigation is needed to settle the claim of Verneuil and Otis in regard to the frequency of strictures of the spongy portion of the urethra. The urethrometers of Dr. Otis and Dr. Weir are both praised, but preference is accorded to the latter. Dr. Otis's rule of a constant relative proportion between the caliber of the urethra and the size of the penis is accepted as approximatively correct, and as of considerable practical value. Dr. Bumstead fully agrees with Dr. Weir, as opposed to Dr.

Otis, in the opinion that there are constrictions in the spongy portion to some extent independent of disease and consistent with a state of health, or, in a word, *normal.* The expression "to some extent independent" seems to us to impair the force of the statement very materially.

In internal urethrotomy, Maisonneuve's urethrotome is preferred for tight strictures, and Dr. Otis's dilating urethrotome for those which will admit its shaft. It is to be hoped that the following words will sink into the hearts of those callow young men who are itching to introduce a urethrotome into every urethra whose owner is so unlucky as to fall into their hands: "The tendency of the present day is to underrate the skill and experience required for its performance" (the performance of internal urethrotomy), "to undervalue its dangers and inconvenience to the patient, and to resort to it with unnecessary frequency." It would be well, too, if these further words were pondered: "Knowing what I do of the operation, if I had a marked and annoying stricture in the anterior portion of the urethra, or if I had an obstinate gleet which no other means would relieve, or if I were the subject of one of those tormenting neuralgias dependent upon stricture *that we read of,* I would have my stricture cut; but, if I had only a 'stricture of large caliber,' presenting no obstruction to the urine, and occasioning no inconvenience, no argument drawn from possible ills in the future could persuade me to be subjected to the knife; and, *what a surgeon would not have done to himself, he has no right to recommend to others!*"

Under the name of "sexual hypochondriasis" are included the various fancied ailments of the genital functions, concerning which men are so often solicitous—the chief of them being involuntary emissions. The subject is admirably handled. Could this chapter be read by the community at large, we should soon see an end of the vile "museums of anatomy," *et id genus omne,* which still rear their disreputable fronts on our finest thoroughfares.

Part II. is devoted to chancroid. The added matter in the first chapter relates mostly to the varieties of the sore and to the diagnosis of chancroid. The consideration of chancroid and its complications fills eighty-one pages.

Part III., which treats of syphilis, is made up of twenty-eight chapters—five more than it contained in the third edition, and constitutes about half the volume. The additional chapters are on "the nature of syphilis," "special indications from the seat of chancres," "cachexia, chloro-anæmia, asthenia," "influence of syphilis upon the constitution," and "the syphilides," considered apart from irritability of the skin and mucous membranes, changes in the sensibility of the skin, and cutaneous hæmorrhage. The chapter on the syphilides contains alone nearly twice as many pages as were given to all syphilitic affections of the skin and its appendages in the third edition. It is an admirably systematized and condensed account of the present state of our knowledge of this subject. The authors are of the opinion that the pigmentary syphilide, which has only of late attracted attention, has but a remote and obscure connection with the syphilitic taint. They consider the heightened pigmentation of the patches to be the characteristic feature, rather than the diminution of pigment around their borders. The local treatment of the syphilides forms quite a prominent part of the section devoted to treatment, and is admirably presented. The general practitioner may draw valuable diagnostic hints from the short descriptions of certain non-venereal affections of the skin which have been introduced—eczema of the scrotum and penis, tinea circinata inguinalis, scabies of the genital organs, phtheiriasis pubis, tinea versicolor, and lupus erythematosus of the penis.

Syphilitic affections of the tongue and neighboring parts take up considerably more space than in former editions. It is thought that the syphilitic origin of the so-called psoriasis of the tongue is doubtful. The diagnosis of gummatous ulcers from cancerous ulcers of the tongue is given as sharply as the difficulty of the subject admits of. Fournier's case of tertiary degeneration of the sub-lingual gland is referred to. The section on syphilitic affections of the rectum is new. It treats of chancroidal stricture and of the tertiary lesions described by Verneuil, Fournier, Zeissl, Barduzzi, and Zappula. The section on syphilitic affections of the spleen is enlarged by an interesting *résumé* of recent French and German observations. We note also a like extension of many of the sections in the chapter on affections of the respiratory apparatus.

The chapter on affections of the nervous system gives a very full and well-digested account of the many advances which have been made in our knowledge of the subject during the past few years.

In the preceding edition the syphilitic affections of the fingers and toes received brief mention under the name of panaris. In the present volume that term is abandoned, and dactylitis used instead. Dr. Taylor's name is so prominent in the literature of this subject that its consideration in this work may be said to come as near being authoritative as does anything in medicine at the present time. The same may be said of that portion of the book which deals with the other osseous manifestations of syphilis.

The chapter on the affections of the eye is by Dr. E. G. Loring, and is marked by the precision which we are accustomed to look for in that gentleman's writings. The one on affections of the ear is mostly a compilation of recent investigations by Gruber, Schwartze, Stöhr, Roosa, Buck, and Sexton. Hereditary syphilis is considered at much greater length than formerly, and in a most excellent manner. Affections of the placenta are treated of in a short, separate chapter. The remainder of the volume is devoted to the general treatment of syphilis.

The various diseases which we group under the name of venereal are so prevalent in almost every community, and their manifestations so permeate general pathology, that it is impossible for any one to practice medicine intelligently without a fair knowledge of them. We know of no better way to get such knowledge than by the study of Drs. Bumstead and Taylor's work. Certainly it should be in the hands of every American physician.

St. George's Hospital Reports. Edited by William Howship Dickinson, M. D., F. R. C. P., and Thomas Pickering Pick, F. R. C. S. Vol. ix., 1877–'78. London: J. & A. Churchill, 1879. Pp. xv.–815.

Rather more than three quarters of this portly volume are taken up with the reports of the various departments of the hospital. These reports contain much statistical matter, and, in addition, short, sketchy narratives of cases. They are so well arranged that the reader can easily look up any particular point without taking the time to sift the whole of the report within which it may happen to fall.

Some of the set papers are as follows:

On the Treatment of Gout by Salicylic Acid, by A. W. Barclay, M. D. He denies that there is any pathological lesion to which the name of "gouty kidney" can be truly applied. The question was, Whether the development of the constitutional action of salicylic acid was, on the whole, in simple, uncomplicated cases, more or less satisfactory than that of colchicum? Eight cases are analyzed. In every case the relief of pain was unmistakable; but, in the subsequent course of some of the cases, the success of the remedy was doubtful. Half the cases presented traces of albumen in the urine, which wholly disappeared under treatment. Two of them were typical instances of transitory albuminuria. The conclusion reached was, that, when the patient was susceptible to the influence of colchicum, it had a more definite action than salicylic acid in eradicating the disease.

On the Results of the Treatment of Compound Fracture of the Leg in this Hospital, with Special Reference to Lister's Antiseptic Method, by J. Holmes. The drift of this article is, that asepticism is not the essential element that accounts for the success of Lister's method of treating wounds. It is well worth reading in connection with the recent London debate on the antiseptic treatment.

Mr. E. C. Stirling gives a *Report on the Cases of Tetanus.* The cases were seven in number. In three of them the injury was a burn; in the others, respectively, an abrasion of the back of the hand, a crushed finger, a compound dislocation at the ankle-joint, and a lacerated wound of the hand. The latter was the only one that ended in recovery. It was treated with chloral and cannabis indica.

In a paper by Mr. Herbert Watney on *Some Cases of Mitral Disease without Murmur*, the author lays stress upon two physical signs in such cases; the feeble, at times almost imperceptible, pulse at the wrist, and the diminution or absence of the first sound of the heart. A marked second sound, heard over the pulmonary artery, was present in but one of the six cases given, and he therefore concludes that it is not a feature of diagnostic value.

Mr. John Jones furnishes a paper *On a Novel Method of reducing Dislocation of the Shoulder.* He thus describes his method: "I placed the patient in a chair. I then put my *right* foot (the injury, be it observed, being on the *left* side of the patient) on the edge of the chair, and drew the patient's forearm under my leg. I placed the wife (the only person available for my purpose) behind the chair, and, with both her hands over the patient's *right* shoulder, desired her to grasp his wrist firmly. I then held the head of the humerus with both hands, the thumb of each hand pressing against the point of the acromion process of the scapula, thus forming a fulcrum to a lever in the axilla, and at the same time fixing the scapula from following the humerus in the act of extension, a consideration on which the merits (if any belong to it) principally depend. By dropping my foot off the chair and pressing the arm downward with my leg, the head of the bone slipped into the glenoid cavity with the usual click, and with unusual ease."

The next paper, a very valuable one, is by Dr. E. L. Fox, *Notes on Some Forms of Intestinal Obstruction.* The forms of obstruction dealt with include volvulus, compression by tumors, cancerous stricture, the results of peritoneal inflammation, cicatricial stenosis, foreign bodies, fæcal impaction, paralysis after localized enteritis, and intussusception.

Mr. George Gaskoin follows with an article *On Ichthyosis*, under which term he evidently includes conditions which in America would not be called ichthyosis, for he mentions that one hundred cases have come under his observation. We should almost as soon expect to meet with one hundred cases of hydrophobia.

Mr. Wyndham Cottle, in an article on *Chrysophanic Acid*, gives in regard to that remedy the conclusions which, we think, have been reached by nearly all who have used it to any great extent—chiefly, that it often does away with the skin lesions of psoriasis very promptly after other measures have failed, but that it does not preclude the necessity of constitutional treatment; that it is useful in a number of other skin diseases when stimulation is indicated, but that in such cases it has no advantage over many other less disagreeable applications.

The gist of Mr. John H. Morgan's article *On the Opening and Drainage of Joints* is, that joints may be opened with less fear of consequences than was formerly entertained, and that the increased freedom from risk is largely due to the use of Lister's antiseptic system of dressing.

Under the singular title of *History of an Illness*, Mr. S. Wilson Hope gives a sketchy account of the case of a lady who had some positive, but not serious, uterine lesions, which seem to have given rise to a rather complex condition of general invalidism, characterized chiefly by neurotic manifestations. The story is told in a weak, pointless manner, and no attempt is made to clear up any of the questions which arose, and for which the lady was sent to first one consultant and then another. The article seems to us of no value, save as a warning to patients to put themselves wholly under the care of some one strong man, a man not afraid to take the responsibility of directing matters, rather than to submit themselves to a debating society.

Dr. W. B. Cheadle closes the volume with a paper on *Exophthalmic Goître*, in which cases are given, with one post-mortem examination, and a "general summary of results." "The most important condition to be observed," says Dr. Cheadle, "in the management of severe cases of exophthalmic goître in the active stage is the preservation of the most absolute and complete physical and mental rest. . . . The chief source of danger appears to lie in the supervention of uncontrollable vomiting and diarrhœa, leading to fatal asthenia. . . . I have used drugs little, except for the control of these severe symptoms; a combination of digitalis, opium, and tannin being most effective." He thinks that, while the disease is a distinct neurosis, in which the sympathetic is largely involved, the chief center of morbid action must lie in the upper portion of the spinal cord or the medulla oblongata.

The reports of the various London hospitals form a most valuable element of our medical literature, and it is very much to our discredit that America produces nothing of the sort. A few volumes have appeared here at odd times, to be sure, and they have been creditable so far as they went, but we are not aware of any sustained work of the sort.

Localization in Cerebral Diseases:

1. *Physiology and Histology of the Cerebral Convolutions.* By Charles Richet, A. M., M. D., Ph. D. Translated by Edward P. Fowler, M. D. New York: Wm. Wood & Co., 1879. 8vo, pp. xvi.–170.
2. *Lectures on Localization in Diseases of the Brain.* By J. M. Charcot. Edited by Bourneville. Translated by E. P. Fowler, M. D. New York: Wm. Wood & Co., 1878. 8vo, pp. viii.–133.
3. *The Localization of Cerebral Disease.* Being the Gulstonian Lectures of the Royal College of Physicians for 1878. By David Ferrier, M. D., F. R. S., etc. New York: G. P. Putnam's Sons, 1879. 8vo, pp. 142.

A great deal has been accomplished of late by pathologists in the development of facts relating to localization in affections of the brain. Especially have German and French investigators done much to advance our knowledge of the functions of the several parts of the brain, the anatomy of the circulation, and the relation that it bears to lesions, as well as to advance many new pathological and clinical facts. The three works bearing the above titles may be considered to fairly represent the opinions of the present time upon this subject.

The work of Richet shows great depth of research on the part of the author, and the minute anatomical descriptions are the outgrowth of much original investigation. The work is especially physiological in character, experiments and pathological facts being used for the purpose of establishing the physiological action of certain parts. The chapter on "Poisons of the Intellect" has the same bearing, and is quite interesting.

Charcot's work is more especially calculated to establish pathological points, although it, as well as Richet's, has a practical bearing on diagnosis. Charcot, in explaining the consecutive fascicular contraction or lateral sclerosis resulting from a destructive lesion in the convolutions, does not refer the condition to retraction of the cerebral cicatrix, nor to encephalitis in the vicinity of the lesion, but attributes it to a chronic myelitis in the lateral fasciculus resulting from the cerebral lesion. A considerable space is devoted to the explanation of cerebral hemianæsthesia, crossed amblyopia, and lateral hemiopia. A very deep study of the hypothesis of semidecussation is entered into. It is claimed that the fibers of the optic bands extend beyond the genicular bodies into the hemispheres, with a probable decussation behind these bodies.

The work of Ferrier is quite clinical in character, making differentiation the prominent feature, without ignoring pathological principles. The author joins issue with Brown-Séquard on several points, thus: When Brown-Séquard claims to have established a new doctrine with reference to cross paralysis, because he can cite two hundred cases of direct paralysis, or paralysis occurring on the same side as the observable lesion in the hemispheres, Ferrier says, on p. 8: "If we compare the relative frequency of cross and direct paralysis, it would be a low estimate to say that, for every case of direct paralysis, we might cite nine hundred and ninety-nine cases of cross paralysis. Are we, then, on the strength of one contradictory instance, to say that the nine hundred and ninety-nine cases carry no weight?" Again, in cerebral motor paralysis, the author believes in the direct relationship between organ and function, in opposition to the inhibitory influence exerted on some center supposed to govern the function lost, as is claimed by Brown-Séquard. The author says, pp. 40 and 41: "When a clear case of destructive lesion of the cortex of this region [a region including the bases of the three frontal convolutions, with those bounding the fissure of Rolando], without motor paralysis, is forthcoming, it will be time to cast aside the immense body of positive experimental and clinical evidence which we possess in favor of the thesis enunciated. . . . If motor function is ascribed to a nerve because on irritation the muscle contracts, and on section the muscle is paralyzed, I can not see why motor function should not be predicated of the cortical center, seeing that the phenomena are essentially the same."

In order to illustrate Ferrier's method of differentiating certain symptoms of brain lesion, as well as to further give his views upon cortical paralysis, we will make a single quotation from p. 99: "While we can not be quite certain of the position or extent of a cortical lesion causing a sudden and complete hemiplegia, we may take a monoplegia of the leg, or of the arm and leg, as an indication of lesion of the upper extremity of the ascending convolutions close to the longitudinal fissure; brachial monoplegia, as a sign of lesion of the upper part of the ascending frontal convolution, or, if the paralysis affect the hand more particularly, of the ascending parietal convolution; brachio-facial monoplegia, as indicating lesion of the mid-fronto-parietal region; while facial and lingual monoplegia, or this combined with aphasia, indicates lesion of the lower part of the ascending frontal convolution, where the third frontal unites with it."

The works of Richet and Charcot are both very well translated. The publishers have succeeded in making neat and convenient volumes. As no two authors are likely to pursue any study from precisely the same standpoint, we find it very pleasant to study these independent works upon the same subject by as many men so distinguished as are the authors of these volumes.

Paracentesis of the Pericardium. A Consideration of the Surgical Treatment of Pericardial Effusions. By John B. Roberts, A. M., M. D., etc. With illustrations. Philadelphia: J. B. Lippincott & Co., 1880. Pp. 100.

We have read this little book with much interest. Dr. Roberts treats his subject exhaustively, beginning with the causes of pericardial effusion and the pathology of the condition. He goes on to develop in logical order and clear style the diagnosis, prognosis, and treatment of the affection. Under the head of treatment, the author runs rapidly through the various medical resources at our command, and passes on to the history of paracentesis of the pericardium. We are then given a graphic description of the anatomy of the parts concerned, and told of the various methods of operating. One of the most interesting and instructive of the chapters is devoted to a discussion of the merits of the various points that have been selected for the puncture. We are then told clearly of the dangers to be encountered in the operation, and of the objections that are urged against it, and warned of the complications that may arise. Dr. Roberts is not a blind partisan in his feelings. He tell us what cases are fit for operation and what are not. The book closes with an elaborate analysis of all the published cases. They are sixty in all. As the author admits, the results of the operations in those cases have been such as to make us think it often but a palliative procedure; but we fully concur with him in thinking that, as such, it is well worthy of being adopted into the family of accepted surgical operations. The book has an elaborate index. We feel sure that it will be well received by the profession, and that it will throw much light into places that have long been dark.

A Dictionary of the German Terms used in Medicine. By GEORGE R. CUTTER, M. D., etc. New York: G. P. Putnam's Sons, 1879. Pp. 304. Price, $3.

THE author tells us, in his preface, that this work is the outgrowth of notes and definitions that he had made for his own use. The need of a work of this sort has been felt—by but few, perhaps, but by those few keenly. Our German brethren have an aggravating way of coining medical terms out of their vernacular that renders ordinary German-English dictionaries of very little value to their Anglo-Saxon readers. Dr. Cutter deserves great praise for his undertaking, in which he has certainly succeeded very well. As a matter of course, there are some omissions, and we should prefer to see the definitions given in English altogether, rather than, as is so often the case in this work, in Latin. The fact that the author is not a German, as he somewhat apologetically states, seems to us no disadvantage, for, being an American, he should therefore know all the better what sort of definitions would be most satisfactory to American readers, and what words they would most need to have defined.

Materia Medica and Therapeutics. Vegetable Kingdom. By CHARLES D. F. PHILLIPS, M. D., F. R. C. S. E., etc. Edited and adapted to the United States Pharmacopœia by HENRY G. PIFFARD, A. M., M. D., etc. New York: William Wood & Company. 1879. Pp. 323.

THE English edition of Dr. Phillips's work appeared in 1874, and it was the author's intention to follow it with one or two other volumes treating of the inorganic remedies, the alcohols, ethers, etc. His plan in the work before us was to omit all superfluous botanical and chemical details regarding the various drugs, and to enlarge upon their physiological and therapeutical action. The information concerning the action of drugs was largely the result of his personal observation and experience, and differed materially from anything to be found in the ordinary text-books at the time the work was published, as it not only was more full and analytical, but dealt with many remedial agents that were new or little known to the profession. The work, being rather large and expensive, has not been very generally known or appreciated in this country, notwithstanding its remarkable merit, and we are glad to see it now introduced as one of Wood's "Library of Standard Authors." The editor of the American edition, Dr. Piffard, has condensed the original by omitting all botanical description and some other details, and adapted it to the United States Pharmacopœia. He has also made many valuable additions, either directly to the text, or as supplementary notes, from his own experience and observation, especially regarding our indigenous drugs, such as gelsemium, hamamelis, iris versicolor, etc. He has likewise supplemented the text, where it was necessary to do so, by references to the latest views and discoveries of other observers. Both practitioners and students will find the book a repository of valuable and essentially modern information.

A Treatise on the Theory and Practice of Medicine. By John Syer Bristowe, M. D. (London), etc. Second American edition, revised by the author. With notes and additions by James H. Hutchinson, M. D., etc. Philadelphia: Henry C. Lea, 1879.

Works on the practice of medicine soon grow old, and, no matter what the ability of the author, perpetual revision is indispensable. It is only about three years since the first edition of this work appeared, and the author has already found it necessary to strike out much of the original matter, to make many corrections, and to add not a little matter entirely new. It would be alike difficult and useless to point out in detail the alterations that make the present edition thoroughly modern. They will be appreciated by the attentive reader, and will be found materially to enhance the value of the treatise. The American editor has introduced some new notes where they seemed necessary to adapt the text to the wants of the American practitioner, and has retained nearly all of those made in the first edition.

A System of Midwifery, including the Diseases of Pregnancy and the Puerperal State. By William Leishman, M. D., etc. Third American edition, revised by the author, with additions by John S. Parry, M. D. With 205 illustrations. Philadelphia: Henry C. Lea, 1879.

The new edition of this popular text-book has been carefully revised by the author, and some changes have been made, in order to adapt it to the latest developments in obstetric science and art. The matter has been so rearranged that, whereas the second edition had 766 pages, the present issue has only 732 pages. We have more than once had occasion to speak very favorably of the work, and we again recommend it as an excellent text-book.

A Text-Book of Physiology. By M. Foster, M. A., M. D., F. R. S., etc. With illustrations. Third edition, revised. London: Macmillan & Co., 1879.

Dr. Foster's work has gained for itself a decided popularity among students and instructors in physiology, three editions having been called for in as many years. The principal changes in the present edition will be found in the section on muscle and nerve, which has been entirely rearranged with the view of rendering the subject clearer and easier to comprehend. Numerous slight additions have been made throughout the work.

The Croonian Lectures on Certain Points connected with Diabetes. Delivered at the Royal College of Physicians by W. F. Pavy, M. D., etc. London: J. & A. Churchill, 1878. 12mo, pp. 126.

In these few lectures the author gives the modern and accepted theories and much fresh thought upon the pathology of diabetes; and, although differing widely on many points with the veteran investigator Bernard, he cordially acknowledges the immense gain to physiological knowledge due to his labors in this direction. The author's galvimetric process, for determining the proportion of sugar in a given sample of blood, is well brought out, and a comparative table is given of Bernard's volumetric and Pavy's galvimetric processes of analysis.

Laboratory Teaching: or, Progressive Exercises in Practical Chemistry. By Professor Charles London Bloxam. Fourth edition, with illustrations. Philadelphia: Lindsay & Blakiston, 1879. 16mo, pp. ix.–261.

These exercises are developed in the scientific manner characteristic of the author. The merit of the work is also attested by the demand for the successive editions. It contains: 1. A series of tables for the analysis of unknown substances of all kinds which are known to be single substances, and not mixtures. 2. A brief description of all the practically important single substances likely to be met with in ordinary analysis. 3. Simple directions and illustrations relating to chemical manipulation. 4. A system of tables for the detection of unknown substances with the aid of the blowpipe. 5. Short instructions upon the purchase and preparation of the tests, intended for those who have not access to the laboratory.

Analysis of the Urine, with Special Reference to the Diseases of the Genito-Urinary Organs. By Professors Hofmann and Ultzmann, translated by T. Barton Brune, M. D., and H. Holbrook Curtis, Ph. B. New York: D. Appleton & Co., 1879. 8vo, pp. 264.

A little more than half of this work is devoted to the histology of the urinary organs and the physical characteristics and chemical composition of the urine, the authors evidently appreciating the fact that it is only through physiology that we can successfully approach pathology with reference to diagnosis. The style of the book is particularly pleasing, and the translation evidently a good one. The beautiful colored plates appended to the work were principally taken from "Ultzmann and Hofmann's Atlas der physiologischen and pathologischen Harnsedimente," and from photographs furnished by Dr. Ultzmann.

New and Original Theories of the Great Physical Forces. By Henry Raymond Rogers, M. D. Published by the author, 1878. 16mo, pp. xii.–107.

Truly "the scientific use of the imagination too often leads men into the grossest errors." The writer of this modest article undertakes no less a work than to reduce all physical forces to an elementary principle, which, to correspond with the theory in novelty, he calls vito-magnetism. We can not recommend the work to the student in search of practical knowledge, but would suggest that either the author be properly restrained or that all scientific institutions be turned into asylums for the confinement of their respective faculties.

The Throat and Voice. By J. Solis Cohen, M. D., etc. Philadelphia: Lindsay & Blakiston, 1879.

This little treatise, which we think is fitted to become popular in fact as well as in name, makes no pretension of teaching either the art of practicing medicine (a fault to be found in many works of a similar character), or the art of cultivating the voice. Perusal of its pages will show, on the contrary, that the writer's aim has been to direct the attention of the general reader to some scientific facts concerning the throat and voice, and, furthermore, to present for his consideration certain opinions and some advice, which the author's reputation and experience, without doubt, fit him to give. In *part first*, clear and well-written chapters upon such subjects as diphtheria, croup, enlarged tonsils, and the like, are timely and useful in giving instruction upon vital points in quarters where it is much needed. The average reader will turn with avidity to those upon naso-pharyngeal catarrh and chronic sore-throat, as treating of topics in which he has a strong personal interest. We fail to see the necessity, perhaps even the desirability, in a popular treatise, of introducing even short chapters upon such matters as morbid growths, paralysis of the throat, neuralgia, and spasm of the pharynx. The one on foreign bodies may prove useful, if it does not lead to meddlesome interference. The portions of *part second* relating to the acoustics and the varieties of voice must receive our unqualified endorsement. We have read them with pleasure, interest, and profit. An ordinarily dry subject, difficult of comprehension by the average lay-reader, is made clear, bright, and readable. The author reviews the general laws of sound, and then proceeds to study the mechanism of those portions of the human organism concerned in the production of vocal sounds. Considerable insight is thus gained as to the nature of the voice. The student of music may turn without disappointment for good advice upon the defects of voice, its proper and improper use, and its care, to the latter chapters of the little work, which, we may add, is got up in a pretty and attractive style.

The Eyesight and how to care for it. By George C. Harlan, M. D. Philadelphia: Lindsay & Blakiston. 1879. Pp. 140.

This is one of a series of "Health Primers" projected by the publishers, of which four have already appeared. It is a small 16mo, and is divided into nine short chapters. Though the author proposes in the introduction to make the explanations as simple as possible, and to avoid the use of technical language, yet the little book is full of them, simply because from the nature of the subject they can not be avoided. The anatomy of the eye is briefly considered in the second chapter, and yet sufficiently for the author's purpose. There are several loose expressions, such as "a plate of cartilage," in speaking of the eyelid, whereas there is no cartilage tissue here. The chapter on optical defects is perhaps as plain as it can be made to the ordinary reader, and yet it necessitates a certain amount of knowledge of the laws of optics. The practical suggestions for the care of the eyes embodied in Chapter VIII. are important, and the advice given is sound. Under this head are considered the paper and type of books and newspapers, the illumination and the direction in which the light comes, and a comparison between sunlight and artificial light. The author thinks the light of the future will be the electric light. The chapter upon the effects of school-life upon the sight, though brief, contains all the important points of the subject, and is perhaps better fitted for perusal by the general public than anything else in the book. Yet the reviewer doubts much whether such attempts at popularizing medical science are to be commended.

How to take Care of our Eyes, with Advice to Parents and Teachers in Regard to the Management of the Eyes of Children. By Henry C. Angell, M. D. Boston: Roberts Brothers. 1878. Pp. 70.

This little work is printed on good paper and in clear type, and is an attempt to popularize, for the general public, a branch of medical science which is confessedly the most abstruse and complicated of all. On general principles, the reviewer believes that such attempts are to be deprecated, and a perusal of this little work has not induced him to change his opinion. The author's attempt to free his work from technical terms, and thus render it simpler, has been successful; but the result has not been any improvement, but rather the reverse. This failure is not to be attributed to any fault of the author, but to the inherent difficulties of the subject. The plates used are good and sufficiently simple, but there are many points of the subject which do not admit of simplification. More space might advantageously have been given to the discussion of the hygiene of the school-room, with special reference to the eyes of school-children. The attempt to simplify the term "astigmatism" by calling it "peculiar sight" is certainly not to be recommended.

Transactions of the New York Pathological Society. Vol. III. Edited by John C. Peters, M. D., etc. New York: Wm. Wood & Co., 1879. Pp. xix.–335.

We do not often receive the report of the transactions of any society which gives us the pleasure this volume has done. It seems from the statement of the editor that the cases presented at the meetings of the society since its beginning, many years ago, have been allowed to accumulate, and are now for the first time brought to light in these volumes. The amount of material is so great that it would be valuable on this account, if on no other, but it is so arranged and classified that the book at once takes its place as a work of reference in which the best practice of leading New York physicians and surgeons for the past thirty years can be seen at a glance. The pathological element seems to have been mostly confined to the presentation of specimens obtained at post-mortem examinations, and the work is of more value from a clinical than from a pathological standpoint, but this lies with the society and not with the editor.

The present volume, which is a direct continuation of the two preceding ones, is devoted chiefly to diseases of the digestive organs, with the bladder and the female organs of generation, and, if space permitted, we should like to dwell upon some of the rare and curious cases to be found in it. Suffice it to say, however, that they are concisely and well reported and indexed, and that the mine, which is a very large one, has been thoroughly well worked. The thanks of the profession at large are due to the gentlemen who have burdened themselves with the task, and the appearance of the volumes still to follow will be watched for with increased interest. Taken together, they will make a series which no library can afford to be without.

In addition to the bare reports of cases, short general notes on the diseases in question have been added, by means of which a student can gain in a moment a few of the salient points concerning each class of diseases. We can only regret that so much of value should have been allowed to remain so long hidden.

Transactions of the Medical Society of the State of Pennsylvania, at its Thirtieth Annual Session, held at Chester, May, 1879. Vol. XII. Part II. Published by the Society. Philadelphia, 1879. Pp. vi., 519–999.

The volume contains the minutes of the annual meeting of the Society, the reports of the various county societies, the code of ethics, and a list of members. In addition to these, there is some good reading in the way of papers, chief among which is one on "Extirpation of the Ovaries," by Dr. William Goodell, in which he gives his experience in the removal of the ovaries for diseases "not in them, but dependent on them." The first operation reported was for a uterine fibroid, which reached to a point two finger-breadths above the navel; and it was so successful, not only as regards the general condition, but also as to the growth of the tumor, that six months after the operation the growth was reduced to the size of a horse-chestnut. The second and third operations were for "pernicious menstruation," with great impairment of the general health; the second successful, and the other fatal from a slight pelvic peritonitis which the patient had not sufficient strength to withstand. The last case was one of insanity limited to the catamenial periods. The operation itself was successful, but the mental condition remained unchanged. The relative advantages of the abdominal and the vaginal incisions are discussed, and also the effects of the operation on the appearance and character of the woman.

We note also "A Contribution to the Clinical Study of Exophthalmic Goître," by Professor William Pepper, in which he reports two cases of recovery, and lays down some general rules as to treatment, being satisfied that the unfavorable results often obtained are due to "the adoption of special modes of treatment, based upon some partial theory of the disease, and employed with little reference to the peculiarities of the individual case."

Besides these, there are other excellent articles, on "Juvenile Insanity," by Dr. Isaac N. Kerlin; "Emotional Fever," by Dr. Andrew Fleming; "Horizontal Extension for the Purpose of applying the Porous Felt Jacket for Curvatures of the Spine," by Dr. Benjamin Lee, etc. A part of the volume is devoted to an exceedingly interesting obituary notice of the late Washington L. Atlee, M. D., by Dr. T. M. Drysdale, in which the personal characteristics of the man are dwelt upon, as well as his connection with the struggles and triumph of ovariotomy.

The Physician's Hand-Book for 1880. By WILLIAM ELMER, M. D., and ALBERT D. ELMER, M. D. New York: W. A. Townsend, 1880. Pp. 313.

THIS seems to be one of the best of the various publications of its kind, with rather a fuller posological table than we remember to have seen in any of the others.

BOOKS AND PAMPHLETS RECEIVED.—A System of Medicine. Edited by J. Russell Reynolds, M. D., F. R. S., etc. With numerous additions and illustrations, by Henry Hartshorne, A. M., M. D., etc. In three volumes. Vol. I. General Diseases and Diseases of the Nervous System. Philadelphia: Henry C. Lea, 1879. Pp. 1127. [From E. R. Pelton, New York.] ═══ The Theory and Practice of Medicine. By Frederick T.

Roberts, M. D., B. Sc., F. R. C. P., etc. With illustrations. Third American, from the Fourth London edition. Philadelphia: Lindsay & Blakiston, 1880. Pp. 1041. [Price, $5.00.] ═══ Outlines of the Practice of Medicine, with Special Reference to the Prognosis and Treatment of Disease. With appropriate formulæ and illustrations. By Samuel Fenwick, M. D., etc. Philadelphia: Lindsay & Blakiston, 1880. Pp. 387. [Price, $2.00.] ═══ Pathologie Clinique du Grand Sympathique. Étude basée sur l'Anatomie et la Physiologie. Par le Dr. A. Trumet de Fontarce, ancien interne des hôpitaux, etc. Paris: J. B. Baillière et Fils, 1880. Pp. 373. [From F. W. Christern, New York.] ═══ The Riviera. Sketches of the Health Resorts of the North Mediterranean Coast of France and Italy, from Hyères to Spezia, with chapters on the General Meteorology of the District, its Medical Aspect and Value, etc. By Edward I. Sparks, M. A., B. M. (Oxon.), etc. London: J. & A. Churchill, 1879. Pp. xii.–403. ═══ Pharmacographia. A History of the Principal Drugs of Vegetable Origin met with in Great Britain and British India. By Frederick A. Flückiger, Phil. Dr., etc., and Daniel Hanbury, F. R. S., etc. Second edition. London: Macmillan & Co., 1879. Pp. xx.–803. [Price, $5.00.] ═══ Clinical Lectures on the Diseases of Women, delivered in Saint Bartholomew's Hospital. By J. Matthews Duncan, M. D., LL. D., F. R. S. E., etc. London: J. & A. Churchill, 1879. Pp. vi.–215. ═══ Minor Gynæcological Operations and Appliances, for the Use of Students. By J. Halliday Croom, M. B., M. R. C. P. E., F. R. C. S. E., etc. Edinburgh: E. & S. Livingstone, 1879. Pp. 106. ═══ A Manual of the Practice of Surgery. By W. Fairlie Clarke, M. D. (Oxon.), F. R. C. S., etc. Third edition. New York: G. P. Putnam's Sons, 1880. Pp. xi.–443. ═══ Proceedings of the Academy of Natural Sciences of Philadelphia. Part II. April–October, 1879. Editor: Edward J. Nolan, M. D. Philadelphia: Academy of Natural Sciences, 1879. Pp. 137–216, inclusive. ═══ Transactions of the American Ophthalmological Society. Fifteenth annual meeting, Newport, 1879. New York: Published by the Society, 1879. Pp. 513–618. ═══ Transactions of the American Otological Society. Twelfth annual meeting, Newport, R. I., July 23, 1879. Vol. II., Part 3. Boston: A. Williams & Co., 1879. Pp. 287–362. ═══ Transactions of the Medical Association of the State of Missouri, at its twenty-second annual session, held in Columbia, Mo., May 20 and 21, 1879. St. Louis: McCormick, Nixon & Co., 1879. Pp. 144. ═══ Twenty-fourth Annual Report of the Trustees of the State Lunatic Hospital at Northampton, for the year ending September 30, 1879. Boston: Rand, Avery & Co., Printers to the Commonwealth, 1880. Pp. 75. ═══ The Second Annual Report of the Presbyterian Eye and Ear Charity Hospital, Baltimore, Md., for the year ending December 1, 1879. Baltimore: Innes & Co., Printers. ═══ Seventh Annual Report of the Northern Hospital for the Insane of the State of Wisconsin, for the fiscal year ending September 30, 1879. Madison, Wis.: David Atwood, State Printer, 1879. [From Dr. Walter Kempster.] ═══ A Clinical Inquiry into the Diagnostic Significance of Absent Patellar Tendon Reflex. By C. H. Hughes, M. D. [Reprint from the "Alienist and Neurologist," January, 1880] Pp. 11. ═══ A Study of the so-called Tendon-Reflex Phenomena. By W. R. Gowers, M. D., etc. [Reprint from "Medico-Chirurgical Transactions."] Pp. 37. ═══ The Movements of the Eyelids. By W. R. Gowers, M. D., etc. [Reprint from "Medico-Chirurgical Transactions."] Pp. 12. ═══ On the Sounds of the Heart in Health and Disease. By George Paton, M. D. Edinburgh: Oliver & Boyd, 1879. Pp. 14. ═══ Primer of the Clinical Microscope. By Ephraim Cutter, M. D., etc. Boston: Charles Stodder, 1879. Pp. 24. [Price, 50 cents.] ═══ Salisbury's New Physical Sign of Syphilis. By Ephraim Cutter, M. D. "Am. Jour. of Dental Science," 1879. Pp. 12. ═══ Hints for Invalids visiting Southern Health Resorts. By W. H. Geddings, M. D., etc. [Reprint from "Archives of Medicine."] Pp. 17. ═══ Report of the Results in Thirty-one Cases of Phthisis treated at Aiken, S. C., during the season 1878–'79. By W. H. Geddings, M. D., etc. [Reprint from "The Medical Record."] Pp. 24. ═══ The Structure and Other Characteristics of Colored Blood-Corpuscles. Investigations laid before the New York Academy of Sciences, etc. By Louis Elsberg. New York: G. P. Putnam's Sons, 1879. Pp. 49. ═══ Contribution to the Pathology of the Temporal Bone. By Thomas R. Pooley, M. D. New Bedford: Printed by The Mercury Publishing Co., 1879. [Reprint from "Trans. Am. Otolog. Soc.," July, 1879.] Pp. 7. ═══ Responsibility restricted by Insane Delusion. By T. L. Wright, M. D. [Reprint.] ═══ Twenty-seventh Annual Announcement of the Medical Department of the University of Vermont . . . . for the year 1880.

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Clinical Reports.

BELLEVUE HOSPITAL.

Reported by Gaspar Griswold, M. D.

MYOCARDITIS; HYPERTROPHY WITH PREDOMINATING DILATATION OF HEART WITHOUT VALVULAR DISEASE; SUDDEN DEATH.

(Service of Dr. F. DELAFIELD.)

J. B., twenty-nine years of age, a laborer, was admitted to the hospital December 13, 1879. He gave no distinct history of syphilis, rheumatism, or intemperance. He complained of discomfort referable to the cardiac region, and of dyspnœa increased by exercise. These symptoms had attracted his attention for the first time about six weeks before; steadily becoming more marked, they obliged him to give up work. He presented some cyanosis and dyspnœa; his feet and ankles were slightly œdematous, and his general appearance was suggestive of cardiac disease. On physical examination, no murmur was heard; the first sound was indistinct, and valvular in quality. The apex-beat was not definable with accuracy, and the area of cardiac dullness was considerably increased, especially horizontally. Nothing else of importance was discovered. On December 17th the patient, who had been allowed to walk about the ward, suddenly fell to the floor while arranging his bed. He was found unconscious by those who went to assist him, and died a few moments later. On post-mortem examination, the heart was found much enlarged, weighing sixteen and a half ounces. In spite of the hypertrophy evident from the increase in weight, dilatation was largely predominant, and the walls were thinner than normal. The left ventricle was most affected. Spots of connective-tissue increase were scattered over the endocardium of the left ventricle; section through these points showed that the process had extended in several places quite deep into the cardiac walls, displacing the muscular tissue. The valves were all quite normal, and the papillary muscles and chordæ tendineæ appeared to have escaped injury. The brain and other organs presented no lesions of importance.

ACUTE LOBAR PNEUMONIA AFFECTING THE LOWER LOBES OF BOTH LUNGS; RECOVERY.

(SERVICE OF DR. AUSTIN FLINT.)

H. D., twenty-one years of age, a painter by trade, was admitted to the hospital on November 11, 1879. He gave a history of good health, temperance, and freedom from pulmonary disease until the present illness. On November 8th, while feeling quite well, he became suddenly conscious of a sharp pain in the region of the left nipple. Soon after this he experienced a very severe chill, which lasted nearly two hours and was followed by fever. A few hours after the occurrence of the chill, pain was felt in the right side also, and he began to suffer from a suppressed and painful cough, with scanty, tenacious sputa, which were not distinctly rusty. On admission, the patient presented consolidation of both lower lobes; his sputa were faintly lemon-colored. Temperature, 101·5° F.; pulse, 100 and good; respirations, 38. His urine was dark-colored, acid, and contained no casts or albumen; its specific gravity was 1·030. The patient was ordered milk and beef-tea—a pint of either to be taken every four hours. No medicine was given. Until the morning of November 14th, his temperature fluctuated between 101° F. and 103° F.; his pulse did not vary much from 100; and his respirations were about 30 a minute. He suffered considerably from dyspnœa and pain, but was at no time delirious; he took his milk and beef-tea regularly without nausea or vomiting. On the morning of November 14th (the sixth day of the disease), the patient's temperature was 99° F.; during the day râles redux were heard over the affected portions of both lungs. Resolution progressed rapidly, and the man was discharged in good condition on December 8th.

FRACTURE OF SKULL BY CONTRECOUP; DEATH FROM COMPRESSION BY MENINGEAL HÆMORRHAGE.

(Service of Dr. F. H. HAMILTON.)

J. B., forty-five years of age, a laborer, was admitted to the hospital on December 6, 1879. On the day of his admission, while descending some steps to a cellar, he fell from the last step but one (a distance of less than two feet), striking his left temple, and receiving a slight scalp-wound. He was taken to the hospital in a semi-conscious condition, his arms and face twitching convulsively. The right pupil was dilated; the urine was retained. He continued to grow more and more comatose, the convulsive twitchings continuing, until December 8th, when it was remarked that the left side of his face was paralyzed. From this time his coma deepened, stertor became marked, and he died with pulmonary œdema on December 10th.

At the autopsy, a fracture of the skull was found, commencing at the center of the squamous portion of the right temporal bone, extending backward through the right parietal bone to the occipital, through the occipital bone, on a level with the occipital protuberance, and on through the left parietal bone nearly to its center. The middle meningeal artery of the right side was ruptured, and the blood lost from this source seemed to constitute the greater part of a large superficial clot covering the entire surface of the right hemisphere. This clot was fully an inch thick in places, and the pressure exerted by it had flattened out the convolutions, pushing the cerebrum toward the left, and obliterating the ventricular cavity.

PAIN IN THE RIGHT SIDE FOR A YEAR, WITH OCCASIONAL EXACERBATIONS; ABSCESS OF THE LIVER OPENING EXTERNALLY; RECOVERY.

(Service of Dr. W. H. THOMSON.)

J. M., thirty-two years of age, a laborer, was admitted to the hospital August 21, 1879. The patient gave no history of dysentery or diarrhœa, and denied having suffered to any extent from hæmorrhoids. About a year before his admission he began to notice a sharp pain in his right side, near the nipple; this continued for a month or more without being very severe. Suddenly the pain became much more intense, and he was obliged to apply for admission to the hospital. At that time he had all the symptoms of a circumscribed pleurisy, but no physical signs were ever detected, although frequent examinations were made. His temperature did not rise above 101° F. There was no jaundice or liver enlargement—no hectic or other sign of suppuration—in a word, nothing to suggest hepatic abscess. After about two weeks of counter-irritation he was discharged from the hospital much relieved, but still conscious of soreness on exertion or deep inspiration. During the next ten months some pain was always present; on two occasions he was obliged to apply for assistance at the hospital, suffering from attacks exactly similar to the one above described. He began to grow weaker during the last two or three months preceding his admission on August 21st, and lost flesh to the extent of thirty pounds. On admission he complained of great pain and soreness in the region of the right nipple. He was not jaundiced, but was pale and emaciated, and had some fever every afternoon. He did not experience any distinct chills. The liver was now obviously enlarged, extending considerably below the free margin of the ribs. An hypodermic needle was introduced to the depth of an inch and a half at the point of greatest tenderness (just below the right nipple), and pus was withdrawn containing broken-down liver substance. After a course of poultices lasting a week, the abscess was incised (with antiseptic precautions, after Lister's method), and a drainage-tube was introduced. Pus was evacuated to the amounted of twelve ounces.

The abscess was washed out with different antiseptic solutions (especially of carbolic acid and thymol) daily, always being exposed under a Lister carbolized spray. The process of repair was rapid, and the patient was discharged cured on October 17th. His temperature had never been above normal after the evacuation of the abscess, and no waxy change was detected in any organ as a result of the suppurative process.

MEDULLARY SARCOMA OF TIBIA; AMPUTATION; SECONDARY HÆMORRHAGE; LIGATION OF FEMORAL ARTERY ABOVE THE ORIGIN OF THE PROFUNDA; RECOVERY.

(SERVICE OF DR. F. H. HAMILTON.)

C. D., thirty-eight years of age, a mechanic, was admitted December 15, 1879. Seven years before admission, the patient sustained a fracture of the tibia, which united kindly. Two years afterward he noticed a small tumor at the point of the old fracture, and began to experience some pain in that situation. This tumor had not increased in size very rapidly, but the pain became so great that he was induced to enter the hospital. On examination, there was found an hemispherical tumor, of about the size of half an orange, attached to the anterior surface of the upper extremity of the tibia; it was hard, except at the center, where a sort of elastic semi-fluctuation was appreciable. On December 16th a crucial incision was made over the tumor, which was then removed, together with the portion of the tibia to which it was immediately attached. Examination of the tumor showing that it was malignant in character, Dr. Hamilton on December 18th amputated at the lower third of the thigh, sawing off the femur two inches above the condyles, and making lateral flaps of skin and muscle. During the week following the amputation the patient's condition was good, but on December 26th secondary hæmorrhage occurred from a small artery in the stump, the patient losing about a quart of blood. The hæmorrhage was checked by ligation of the vessel, but came on again an hour and a half later from different points. A tourniquet was then applied, compressing the femoral artery high up; this measure was successful in checking the bleeding. The next day (December 27th) Dr. Hamilton tied the femoral artery in Scarpa's space, above the origin of the profunda.

January 7, 1880.—There has been no more hæmorrhage since the last note. The stump is granulating nicely, and the patient's general improvement has been rapid; his convalescence now seems well established.

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Proceedings of Societies.

NEW YORK ACADEMY OF MEDICINE.

A stated meeting was held December 18, 1879, Fordyce Barker, M. D., LL. D., President, in the chair.

The Forceps [with a Demonstration of the Tarnier Forceps], Version, and the Expectant Plan in Contracted Pelves, was the title of a paper read by Dr. W. T. Lusk. The management of labor in three varieties of contracted pelvis was considered: (1) The flattened, non-rachitic; (2) the flattened rachitic; and (3) the pelvis equally contracted in all its principal diameters. He limited the discussion to cases in which the conjugate diameter was between two and three quarters and three and a half inches. Given a pelvis of that size, a cervix fully dilated, a favorable presentation, and no complications, all statistics showed that the best results were obtained by the expectant plan of treatment. Version was indicated in such pelves when the contraction was limited to the brim, with sufficient amplitude in the transverse diameter, the antero-posterior diameter between two and three quarters and three and a half inches, and the child in nearly a normal condition. The statistics of competent operators were then given, and exhibited for version a saving of thirty-one living infants in forty-three cases, without the loss of a single mother; for the high forceps operation a loss of sixty per cent. of children and forty per cent. of mothers; while for the expectant plan there was a loss of only fifty-three children out of four hundred and seven spontaneous deliveries, with a mortality of twelve mothers by puerperal disease. The field for version and other plans of treatment was restricted to cases where the head was above the brim, the membranes ruptured, and the conditions such as to render it impossible for the uterus to overcome the mechanical obstacle to delivery, provided the labor-pains were sufficiently powerful. Dr. Lusk demonstrated upon the manikin, both in a normal and in a contracted pelvis, the action of Tarnier's forceps, which he had modified by having the blades made somewhat like those of Wallace's forceps, and by substituting a new lock for the traction-handles. Formerly he was not disposed to believe that Tarnier's instrument possessed any special advantages, but, after having used it in fifteen cases, he was sure that when the head was in the brim he could deliver within a few minutes, where, formerly, with the ordinary curved forceps, half an hour or more was required. ═══ Dr. Isaac E. Taylor said that he had had no experience in the use of Tarnier's instrument, but that he regarded it as essentially the forceps devised by D. D. Davis. He saw no reason why it might not be used, yet regarded it as inferior to the straight forceps in delivering from the superior strait. The great point in all obstetric operations was to know exactly the work to be accomplished. The space which had given rise to such a difference of opinion among prominent obstetricians regarding delivery by forceps, version, or the expectant plan, was limited by Dr. Lusk to nine lines—the difference between two and three quarters and three and a half inches—and, with reference to the best procedure, a variety of opinion had been expressed. He objected to applying the forceps over the occiput and the face. With the straight forceps, the operator sitting on the floor and making traction downward and backward, we had an instrument acting in the same manner as Tarnier's. If the forceps failed, version could be resorted to. He thought that generally contracted pelves were more common than was usually supposed. He did not think that the forceps should take the place of version in any case, or that version was more successful than the forceps, simply because success had been obtained in special cases. ═══ Dr. T. Gaillard Thomas felt compelled to say that he placed but little reliance upon statistical evidence. Suppose we had to deal with a contracted pelvis, through which delivery was to be effected, either by nature or by art, without mutilation of the child. In such a case, expectancy at first should invariably be practiced, even though the obstetrician knew that the case must necessarily be terminated by the use of the forceps. Too early approach with instruments, before the molding of the child in the pelvis had been partially or completely accomplished, might give most terrible results. But expectancy became a crime when it was so prolonged as to allow the woman's pulse to become rapid in the intervals between pains, the nutrition of the pelvic tissues to become impaired, and the temperature to rise. Coming to the case, however, when the woman was in good condition, should she be delivered by the forceps or by version? If the head were above the superior strait or just engaged, and version could be done readily and without exposing the woman to special danger from forcing the hand up to the fundus, or otherwise, it should, as a rule to which there were exceptions, be adopted. If it became evident that version, after it was begun, would require a great deal of effort, the operation should be discontinued and the forceps applied. If the child had fairly entered the pelvic cavity, the forceps should be used. But, whichever means was selected, the decision was not necessarily final, and the one could be substituted for the other. For example, when the forceps had been fairly tested and failed, it might be removed and version resorted to. He related a case illustrating this point. He thought that the forceps of Tarnier was a great improvement upon the older instruments, yet he did not believe that it would ever come into general use. ═══ Dr. Paul F. Mundé raised the question, whether the forceps devised by Cleeman, of Philadelphia, by Vedder, of New York, by Aveling, and some others, would not supply the place of Tarnier's instrument, and said that they were less complicated. ═══ The President directed attention to the vital condition of the woman as an important element in deciding which of the two operations should be performed—the use of the forceps or version. He then referred to two cases: one in which the general condition of the woman was such that she evidently could not endure the shock of version, and in which the forceps was successfully used; and the other, one in which the shock of version would be only slight and would not increase the danger of the patient. There were certain *rules* which he believed to be well established: (1) In the oblique-oval pelvis, or Naegele's, version should always be selected; (2) in cases in which the contraction was at the inferior strait, version should always be selected, if the opportunity to make the election was afforded by a sufficiently early examination; (3) in face-presentations, with the head above the superior strait, and not engaged, the forceps should never be resorted to. He would not go so far as the author of the paper, and say that the forceps should never be applied when the head was not engaged at the superior strait. He had, in at least three cases, when there was a face-presentation in a contracted superior strait, and the face had become engaged in the strait, been successful in delivering with the forceps, by first flexing the head and converting it into a vertex-presentation and partially rotating it; then, taking off the blades, he had reapplied them as if it had been a vertex-presentation. In those cases it was fortunate that the original presentation was that of the face, because the vertex would not have engaged in these contracted pelves if it had presented. ═══ Dr. Lusk regarded version, when the head was above the brim, as so much safer than the forceps that he hoped it would be generally adopted.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

A stated meeting was held December 22, 1879, Dr. A. E. M. Purdy, President, in the chair.

The Organization and Operations of the National Board of Health.—Dr. John S. Billings, U. S. Army, Vice-President of the National Board of Health, read a paper on this subject, the chief object of which was, to bring up for discussion the vexed subject of national quarantine. In the first place, he directed attention to the functions of public health organizations in France, Germany, and England. In France, the duties of the organization are numerous, aside from the consideration of quarantine measures. In Germany, the organization is merely a board for counsel and advice—one of the chief objects being to submit propositions calculated to elevate public hygiene into a science. In England, the Board of Public Health has, strictly speaking, nothing to do with quarantine; for England has no quarantine system. In the United States, the main function of the Board is to collect information and give advice, and the essential difference between it and that in France is, that in this country the Board is not obliged to wait until it is asked before offering advice. It was not deemed advisable to make any change at present in the form of its organization. Two changes had been suggested: First, that the Board should have a single officer; but the majority of sanitarians thought it improper to place so much responsibility and power in the hands of one person. Secondly, that all the good results could be obtained by establishing an Executive Committee, which should be continuously on duty and acting under instructions. The practical point of public hygiene must rest on utilitarianism, and to be most effectual its work must be performed with the least interference with commerce and travel, and with the least conflict with local self-government and the general interests of the public. In the United States, with its varieties of climate and local interests, such an organization as a National Board of Health must be as elastic and flexible as was compatible with stability, and such flexibility was essential to its stability. It was popularly supposed that all medical men were sanitarians, but such was not the case. The topics for observation were many; the qualified observers were but few. Few men in this country had paid special attention to sanitary science. One of the most important functions of the National Board of Health was educational. A very important part of the higher education of modern times was to teach how to obtain higher knowledge, and the best way to teach was to perform the work, and show the people how it could be done, by teaching through the press. Dr. Billings discussed, at some length, the subject of quarantine, which he defined to be a system of administration employed to determine the presence or absence of causes of infectious or contagious diseases existing either in persons, in articles of clothing, or in vehicles of communication; to secure the destruction of the materies morbi and the removal of such causes, and to do so with the least possible interruption to travel, etc., and with the consumption of no more time than was absolutely necessary for purposes of inspection, cleansing, and disinfection. No satisfactory quarantine establishments existed on the Atlantic and Gulf coasts south of Philadelphia. The estimated cost of placing the stations in good condition, with allowance for annual expenditures, and a fund for use in emergencies, was $485,000. In connection with the estimate, two practical questions arose: What results could be secured by such an expenditure, and would the investment be judicious and remunerative? The results would be the prevention of some epidemics of contagious and infectious diseases, the securing of an education that would diminish the amount of sickness and mortality, and the obtaining of such a knowledge of diseases as would afford the most economical means of destroying their causes. ═══ The paper being before the Society, Dr. S. O. Van der Poel, Health Officer of the Port of New York, on invitation, remarked that he had watched the work of the National Board of Health with great interest, and at times with jealousy; that the work it had done was immense; that it had had to contend with the jealousy with which this country regarded central organizations; and that the work which it had performed was justly entitled to the respectful support and consideration of the medical profession. He then spoke of the importance of sanitary surveys; and also suggested the division of the coast quarantine system into districts. ═══ Dr. Ezra M. Hunt, President of the New Jersey State Board of Health, on invitation, stated that he believed the arguments which established State Boards of Health should establish a National Board of Health. He thought that the work of the present national organization had done more toward settling the question of State and national sovereignty than had been done by politics during the last ten years. ═══ Mr. Jackson S. Schultze, merchant, on invitation, spoke of the relationship existing between public sanitation and commerce. The loss in money which accrued to the city of New York between the years 1822 and 1840, on account of errors in quarantine, originating with the epidemic of yellow fever in 1822, was at least $100,000,000; and there was now, he said, a feeling among the merchants that, if there were any danger of falling back upon those old practices, they would be willing to maintain a State and a National Board of Health for the purpose of promulgating correct views regarding public sanitation. ═══ On motion of Dr. A. Jacobi, the President was empowered to appoint a committee to report upon Dr. Billings's paper at some future meeting.

NEW YORK PATHOLOGICAL SOCIETY.

A stated meeting was held December 24, 1879, Dr. E. L. Keyes, President, in the chair.

Contagious Pleuro-pneumonia in Cattle.—Dr. Thos. E. Satterthwaite, in behalf of a candidate, presented a specimen of pleuro-pneumonia which illustrated the three stages of the disease as it occurs in cattle—congestion, red hepatization, and necrosis. The period of incubation was very long, and during that time the disease could be communicated from animal to animal, the mode being through the breath mainly, although cattle stabled where the disease had existed might contract it one or two years after the stable had remained unoccupied. The attack came on insidiously. The animal usually coughed. There was no expectoration ; the coat became rough ; breathing was harsh and more or less labored, with bronchial respiration, etc. ; the temperature in the rectum varied from 103° to 106° F., the pulse ranged from 80 to 100; the milk flowed as usual. After the disease had lasted for some time—months, perhaps—the cough was usually well marked; the animal stretched its neck forward, spread its legs apart, and became very thin, and the cough was so severe that with every effort the entire body was shaken. Usually the symptoms were not sufficiently marked to serve for a diagnosis until considerable time had elapsed. About two thirds of the animals died. It was not the rinderpest, but was more dangerous. With regard to the remaining third, it was a question whether tuberculosis was not frequently developed—ordinary tuberculosis, such as occurs in the human subject. The disease showed no tendency toward resolution. The specimen presented was removed from a cow that was slaughtered. When the lung was first removed, it presented the appearance known as marbleization ; that is, there was such an infiltration of serum and lymph between the lobules that each one could be distinctly outlined, and gave the surface the appearance of marbling. The disease was commonly restricted to one lobe of the lower lung. The pneumonia was of the catarrhal variety. A characteristic change consisted in the enormous thickening of the connective tissue surrounding the bronchi, peri-bronchitis, and the lobules. This thickening extended to the pleura, which became, perhaps, an inch thick, and might or might not be adherent to the chest-wall. The stage of necrosis was that in which the lung-substance was thrown off, and the change had no parallel in the human body. The thickened pleura formed a sac containing clear or bloody serum, or a grumous, offensive material, into which the lung-substance was cast off, where it became so compressed by the surrounding thick connective tissue that it was reduced to a hard ball. So complete was this process that the dead lung could be turned out of its sac, and presented an appearance and consistence not unlike those of a ball of horse-manure. On the extremity of each bronchial tube was a ball of fibrine. The specimen was studied and prepared in Dr. Satterthwaite's laboratory by Drs. W. H. Porter and J. Aycrigg Hegeman.

TRACHEOTOMY-TUBE WORN SEVENTEEN MONTHS WITHOUT PRODUCING IRRITATION.—Dr. BEVE LEY ROBINSON presented a patient who illustrated that a tracheotomy-tube might be worn a long time without producing undue irritation, a point bearing upon the treatment of tubercular laryngitis. The edges of the fistula were freshened with nitric acid and closed by sutures, and union was secured without difficulty. The patient was presented to the Society two years ago, wearing the tube.

UTERINE TUMOR.—Dr. J. C. PETERS presented a tumor closely connected with the uterus which was removed post mortem, and which he suspected was malignant in character. It had been examined by one microscopist, who reported it to be a myo-fibroma of the uterus. [For history, see proceedings of the New York Obstetrical Society in this number ; tumor presented by Dr. C. C. Lee.] The specimen was referred to the Microscopical Committee.

PHTHISIS PULMONALIS ; BRIGHT'S DISEASE ; FACIAL ERYSIPELAS.—Dr. E. C. SEGUIN, in behalf of a candidate, presented a lung removed from a woman, aged twenty-five years, who was admitted to St. Luke's Hospital in October, 1879. During life, Bright's disease was diagnosticated, and Dr. William H. Draper diagnosticated consolidation affecting the upper portion of the left lung, but no cavity; while Dr. James R. Leaming diagnosticated a small cavity, with consolidation. The only physical sign of cavity was cracked-pot resonance. There was a loud whistling sound upon the left side, at about the level of the second rib. At the autopsy, four or five small cavities were found in the right lung, and in place of all the upper part of the left lung was an immense cavity with thin walls, which were adherent to the pleura, and across which thickened blood-vessels and remnants of bronchial tubes extended, and were attached to the thickened pleura. The kidneys were of the large white variety. The patient died during an attack of facial erysipelas. ═══ Dr. JOSEPH W. HOWE referred to a case in which there was no physical sign of a pulmonary cavity up to two days before death, and at the autopsy a very large cavity was found.

ANEURISM OF THE BASILAR ARTERY.—Dr. R. W. AMIDON presented an aneurism of the basilar artery, situated just where the vessel divides into the two posterior central arteries. The man from whom the specimen was taken was forty-four years old, was addicted to the excessive use of alcohol, was a patient of Dr. J. H. Emerson's, and Dr. E. C. Seguin saw him in consultation. Fifteen years ago he had a chancre, followed by constitutional symptoms of a secondary character, for which he underwent treatment, and no syphilitic symptoms had manifested themselves for the last twelve years. Five years ago the patient suddenly lost consciousness, and there was merely clinching of the fists, with some frothing at the mouth. From that attack recovery was apparently complete, and he remained well until December 17, 1879, when suddenly he lost consciousness, and slipped out of his chair. His consciousness was partially regained. There was no paralysis, no strabismus, the fundus of the eye was normal, no dizziness or headache, and the heart, lungs, and urine were normal. December 21st.—Patient washed his face, brushed his teeth, and complained of nothing whatever. There were no symptoms except pallor and slow pulse (65). A few minutes after Dr. Emerson's morning visit, the patient lay down upon the sofa, and, within a few moments, died without convulsions. At the autopsy the skull was found to be very thick; the pia mater rather opaque and considerably œdematous; the dura mater normal; and at the base of the brain was an immense collection of blood, partly fluid and partly solid, covering the entire base of the brain, and extending along upon the anterior surface of the spinal cord as far as could be seen through the foramen magnum. Dr. Amidon thought the hæmorrhage occurred at the time of death, and that the previous symptoms depended upon some other condition. The heart was normal.

MENINGEAL HÆMORRHAGE.—Dr. E. C. SEGUIN presented a specimen of meningeal hæmorrhage which occurred in a man, sixty-eight years of age, who had enjoyed excellent general health up to July, 1879, when he had a partial sunstroke. From that time until his death he suffered, at intervals of from two to five days, from neuralgic headache, affecting the right side, the pain being severe and especially so at night. He had great restlessness, and gradually failed in strength. There were no vesical symptoms. There was occasionally a clonic spasm of the right arm and hand, and a slight stiffness. His pulse was between 70 and 80; axillary temperature, 99·25° F.; no albumen in the urine; pupils normal. He could move all his limbs voluntarily, but the movements of the elbow and fingers were somewhat restricted. The mouth was drawn a little to the right; the tongue protruded in a straight line; and he used words correctly. His arteries were tense. *Diagnosis:* Partial right hemiplegia;

gradual interference with the blood-supply above the speech-tract upon the left side. Six days subsequent to Dr. Seguin's examination, the patient died in a comatose condition. No paralytic symptoms appeared upon the left side. He used wrong words only a few times. His mental action was clear until a few days before his death, when deep coma set in; the pupils were small and fixed; the pulse, abnormally full and slow (58 to 60); no elevation of temperature. *Autopsy.*—On opening into the dura mater, a fine jet of dark blood came out with extraordinary force, and spurted up over the head of the operator. It was found that the blood came from an immense hæmatoma, and that the surface of the brain about the upper median line, on either side of the great longitudinal fissure, was concave instead of convex; and the speech-center seemed to have escaped direct compression. It was a case of pachymeningitis hæmorrhagica. It was an important case for diagnostic purposes, and a most unfavorable one for the theory of localization. All the symptoms pointed toward lesion in the left motor area. From the localized twitching in the cheek and in the hand it would have been correct to infer, according to that theory, that the lesion was essentially in the fronto-parietal convolution upon the *left* side; but the post mortem showed just as much trouble upon the right as upon the left side of the brain.

NEW YORK OBSTETRICAL SOCIETY.

A STATED meeting was held December 16, 1879, Dr. A. JACOBI, President *pro tem.*, in the chair.

PAPILLOMA OF THE OVARY.—Dr. T. A. EMMET presented a tumor removed from the left side of the abdomen, and closely attached to the uterus. The woman had given birth to a child in April last. A jointed sound could be introduced into the uterus nearly six inches. The tumor had grown very rapidly. The fluid first drawn from the tumor, after the abdomen was opened, had the color and consistence of pea-soup; but the color soon changed, and that which flowed away last was exceedingly bloody, resembling that contained in a papillomatous tumor. He raised the question as to whether it did not represent the first stage of a papilloma, and based the suspicion on the rapidity with which the tumor had developed and the character of the fluid contained in the sac. He had had great difficulty in applying the ligature, because the tumor was situated so close to the uterus. The case showed that no reliance, with reference to diagnosis of uterine and ovarian tumors, could be placed on the depth of the uterus. He asked Dr. Noeggerath, who had been present at the operation, to demonstrate the specimen. ═══ Dr. NOEGGERATH said that the outside of the sac had a bluish dark slate color; that a great portion of the lining membrane was apparently covered with blood, but, upon closer examination, the blood was found to be not only in the lining, but also in the stroma itself. He thought the tumor was of the so-called papillomatous variety. The mixture of blood and inflammatory products was peculiar to the vascular papillomatous tumor, and the peculiar appearance presented was due to an abnormal vascularity of the stroma and especially of the lining membrane of the sac. With reference to diagnosis, Dr. Noeggerath thought that too much stress was placed upon length of time in the development of a tumor. It was customary to inquire regarding the length of time a tumor had existed, and yet it was well known that patients often gave a period of time during which it was impossible for the growth to have attained the existing size. It was very rare indeed that ovarian or other tumors were recognized at the *beginning* of their development. In only two cases had he been able to trace the development of the tumor from its very beginning.

Sarcoma of the Uterus undergoing Malignant Degeneration.—Dr. C. C. **Lee** presented a uterine tumor removed post mortem from the body of a woman whom he had seen in consultation with Dr. J. C. Peters, December 7th. Two days previously she had been examined by an eminent gynæcologist, who thought she was not pregnant. When Dr. Lee saw her first, abortion had occurred, the fœtus had been expelled, but the placenta was partially retained, and the vagina was filled, and the patient was suffering severely from shock. About two and a half months previously the tumor was of about the size of a goose-egg; and from day to day it was easy to see that it was increasing in size. About one week after his first visit he saw the woman again, when she was suffering from general peritonitis which progressed steadily, and the patient died December 16th of exhaustion. Repeated puncture of the colon gave no relief from the tympanites, and in two other cases it had also failed to afford relief. At the autopsy evidence of general peritonitis was found—a large quantity of sero-purulent fluid in the abdominal cavity. The right ovary was healthy; the left, increased in size somewhat, but not markedly diseased. The tumor was intimately connected with the uterus, without a pedicle, and contained several cysts with beginning nodules. Dr. Lee entertained no doubt that it was a case of uterine sarcoma undergoing malignant degeneration. The tumor measured about seven by five and a half inches. It was referred to the pathologist. ═══ Dr. **Emmet** remarked that when he examined the woman he found remains of cellulitis, and also gave it as his opinion that she had a fibrous tumor of the uterus. After closely questioning the patient, and receiving from her the emphatic statement that she had not been exposed for a long time, and consequently could not possibly be pregnant, he introduced a spiral sound, although he was struck by the soft feel of the neck of the uterus, for the purpose of determining upon which side of the uterus the tumor was situated.

Freund's Instruments for Hysterectomy.—Dr. H. J. **Garrigues** exhibited the instruments devised by Professor Freund, of Germany, for ablation of the uterus.

Dr. **Noeggerath** remarked that the instrument for perforating the vagina was not well constructed, and stated that he preferred to use a small round trocar, so constructed that, if it perforated a blood-vessel, hæmorrhage would not follow. The saving of blood was an important consideration, even if no more than a single drachm, and he should, therefore, in his next case, separate the uterus from the bladder and the *cul-de-sac* slowly by means of dilators, such as Emmet's, introduced through an opening made with the trocar mentioned, and do the cutting entirely by means of the galvanic knife. He thought the objection that the cautery diminished the chances of union by first intention could be overcome by turning the edges and uniting the uncut surfaces of the peritonæum by sutures.

Counter-pressure Tenaculum.—Dr. H. T. **Hanks** exhibited a counter-pressure tenaculum devised to take the place of the tenaculum ordinarily employed for steadying tissues when sutures are introduced—for example, the lips in the operation for closure of lacerated cervix uteri. It consisted of a piece of steel wire of the length of the ordinary tenaculum, bent upon itself to within half a line of the shank, forming a loop three eighths of an inch in length and one fourth of an inch in breadth; and to the distal extremity of the loop a tenaculum brad or hook was welded.

Hour-glass Contraction of the Uterus.—Dr. **Lee** reported a case of hour-glass contraction of the uterus, a condition seldom seen, but of which much had been written. It was the case of a primipara, with labor beginning at the eighth month, and progressing normally until the third stage was reached, when the placenta seemed to be completely adherent. No traction whatever was made upon the umbilical cord. After waiting for nearly three quarters of an hour, resorting to kneading the uterus, expression, etc., but not giving ergot, and the placenta not being delivered, the finger was introduced, and the condition of hour-glass contraction was found. The uterus soon relaxed, and the placenta, which was entirely above the closed internal os and widely-dilated cervix, was delivered without difficulty.

Peeling of the Cuticle of a Living Child.—Dr. H. T. Hanks reported a case in which a child, born near the end of the eighth month, never gasped, but lived full fifteen minutes, as evidenced by visible and audible pulsations of the heart. Eight days before, the membranes suddenly ruptured while the woman was riding in a street-car, and, from that date she suffered from an annoying discharge of water and from more or less of distress low down in the abdomen. The breech was presenting when he was called, below the brim, resting upon the floor of the vagina. And, as the feet were brought down, it was discovered that the cuticle peeled off readily. He had no doubt but that the child might have been delivered several days before, and that a child could live so long in the pelvis was an interesting fact. ═══ Dr. Mundé thought that it should not be inferred, merely from the fact that the breech of the child was upon the floor of the pelvis for a long time, that necessarily the child should be dead. The most interesting fact was the excoriation of the skin, and he suggested that it was due to syphilitic pemphigus neonatorum.

Vaginal Cicatrices as an Impediment to Labor.—Dr. T. A. Emmet raised the question, How far is cicatricial tissue in the vagina an impediment to labor? and referred to a case in which the vagina was so narrowed that it was a mere sinus, requiring dilatation to reach a vesicovaginal fistula, and also for removing the sutures with which the fistula had been closed. The woman became pregnant while the narrowing existed, and when labor came on was delivered by Dr. Barker, no obstruction whatever being offered by the cicatricial tissue. The fistula recurred, and subsequently the narrowing was so great that the sinus admitted only a small probe. He had also known a dense scar in the perinæum to so soften down as to offer no impediment to labor. ═══ Dr. Garrigues and Dr. Walker referred to cases in which the narrowing of the vagina from cicatricial tissue was equally marked, and yet was not an impediment in subsequent labor.

A stated meeting was held January 6, 1880, Dr. W. T. Lusk, President, in the chair.

Battey's Operation.—The President presented an ovary which he had removed from a patient thirty-nine years old, single, and suffering most intensely from dysmenorrhœa. The woman came under his care about fifteen months ago, when he replaced a retroverted uterus, and after several unsuccessful attempts finally succeeded in adjusting a pessary that held the organ in position and at the same time the prolapsed and exceedingly tender ovary to one side, and gave her so much relief that operation for removal of the ovary, which had been suggested, was postponed. Several months afterward the patient felt obliged to remove the pessary, when her old symptoms returned; and, when a subsequent attempt was made to adjust the instrument, the pain was so aggravated that it could not be worn. As her suffering was so intense at her menstrual periods, and as she was rapidly becoming an opium-eater, the doctor expressed to her a willingness to perform the operation for removal of the ovaries if she would assume all risk. The patient was willing to take the risk, and the operation was performed by the abdominal method, the short incision being made, as recommended by Hegar. During the operation, however, it became necessary to lengthen the incision, in order to allow the enlarged and cystic ovary to be removed. It was secured by means of a double ligature, and the stump was dropped. The other ovary was treated in the same manner. On the third day after the operation the patient was doing well. Before the operation, he had favored its performance; but since, he questioned strongly the propriety of resorting to it for the relief of such cases of dysmenorrhœa. In another case he would make a long incision at the beginning. ═══ Dr. Mundé stated that the patient was under his care two years ago, and at that time was suffering from nymphomania, and her dysmenorrhœa was so severe that he was not able to relieve it by any means except suppositories of opium. The prolapsed ovary was exquisitely tender, and pressure upon it produced vomiting. The other ovary was enlarged. He suggested, now that it could be seen, that it might have been treated by crushing, as had been done several times by Dr. Noeggerath. ═══ Dr. Lee referred to a case in which severe dysmenorrhœa was completely relieved by aspirating a cystic ovary—about an ounce and a quarter of fluid being withdrawn. ═══ Dr. A. J. C. Skene referred to a case in which he had aspirated a cystic ovary for purposes of diagnosis, and there was no recurrence of the tumor at the end of six years. He had often resorted to that aid in making a diagnosis, and had never had occasion to regret its use. The escape of fluid into the pelvic cavity he regarded as far less dangerous than into the abdominal cavity.

Cerebral Hæmorrhage in an Infant.—Dr. H. F. Walker presented the brain of a child six months old which contained an hæmatoma. The child weighed at birth nine pounds and three ounces, presented by the breech, was delivered easily, and did well for twenty-four hours, when it was noticed to have ptosis of the right eye, and the pupils did not respond to light. On the second day it had slight twitchings of the muscles of the face and extremities, but nursed well. On the third day it refused to nurse, and became comatose, with the respiration reduced to three to the minute. The anterior fontanelle being prominent, a drachm of fluid was drawn off by means of an hypodermic syringe, and at once the respiration returned to thirty to the minute, and the child could swallow. On the day following, another drachm of fluid was drawn off, but no benefit resulted, and on the next day death occurred. At the autopsy a large hæmatoma was found. ═══ Dr. A. Jacobi remarked that cephalic hæmatomata were quite common, both inside and outside of the brain, and that in a vast majority of cases they were not due to any violence whatever. He thought that the frequency of hæmorrhage inside the cranium as a cause of death in the new-born and in infants was generally under-estimated. The change in the circulation was so sudden and violent at birth that hæmorrhage occurred frequently on the surface of the brain, and in the medulla oblongata.

Emansio Mensium.—Dr. Skene reported the case of a well-developed woman, thirty years of age, who had been married fourteen years, and had always enjoyed excellent health, but who had never at any time in her life experienced any of the disturbances of the nervous and circulatory systems incident to menstruation. He thought the ovaries were present. The cervix uteri was apparently normal, and he endeavored to pass a probe into what he supposed was a bicornate uterus, but was utterly unable to find an opening. ═══ Dr. H. D. Nicoll referred to a similar case in a woman twenty-eight years old, who had been married five or six years, was healthy and was well developed. He had been unable to determine why she had never menstruated. ═══ Dr. J. B. Hunter mentioned a like case in a woman who was thirty-five years old, had been married four or five years, was well developed, enjoyed excellent health, and apparently had a normal uterus.

Instrument for applying the Galvanic Loop to the Cervix Uteri.—Dr. T. G. Thomas exhibited an instrument designed to facilitate the removal of the cervix uteri by means of the galvanic cautery. With it he had been able to remove a much larger amount of tissue than in any other manner.

Fibro-myoma of the Uterus removed by Morcellement.—Dr. Thomas also presented an interstitial fibro-myoma of the uterus, which he had been compelled to remove in pieces. The whole weighed two pounds, and was situated above the superior strait, having dragged the uterus completely out of the pelvis. The cavity of the uterus measured nine inches and a half. The tumor was removed by means of the spoon-saw and scissors. An incision was first made through the uterine tissue at the bottom of the growth, and the circular artery was severed. The hæmorrhage was profuse, but the vessel was caught and ligatured. The tumor was removed piecemeal. The cavity was syringed out with carbolized water, 1–20, and stuffed with masses of carbolized cotton, which were removed at the end of twenty-six hours, and the cavity again syringed out. The patient was doing well.

Removal of the Uterus and Ovaries.—Dr. Thomas also presented a fibro-cyst, with the uterus and both ovaries attached, which he had removed from a woman fifty-four years of age, three days before, at the Woman's Hospital. Twelve years ago Dr. Emmet diagnosticated uterine fibroid, and several eminent gynæcologists in this country had since corroborated the diagnosis. The patient continued very well until eighteen months ago, when her general condition began to depreciate, and continued to do so rapidly. The tumor presented an appearance very much like that of a fibro-cyst, and had dragged the uterus completely out of the pelvis. It was determined to operate, and, when the abdominal incision had been made and the tumor tapped, a large quantity of fluid, evidently containing pus and looking like thick pea-soup, was drawn off. The only point which resembled a pedicle was that where the cervix was joined to the vagina, which was very small; and this was secured by means of a carbolized double silk ligature, and the stump dropped. Several arteries in the broad ligaments were ligated. It was now the fourth day after the operation, and the patient was doing well.

THE NEW YORK SOCIETY OF GERMAN PHYSICIANS.*

A stated meeting was held November 28, 1879, Dr. A. Jacobi in the chair.

Plastic Operation for Epithelioma.—Dr. Gerster presented a man, sixty-nine years of age, from whom he had removed the entire upper lip for extensive epithelioma. The loss of tissue was covered by the sliding forward of right-angled flaps from either side to the median line. Primary union had resulted, with slight tension of the new lip, which latter would adjust itself perfectly in time.

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* The Society was organized over twenty years ago, under the auspices of the medical staff of the German Hospital and Dispensary, by the late Drs. E. Krackowizer, Cammerer, and Althof, and by Drs. Jacobi, Noeggerath, Herzog, Schwedler, Schnetter, Voss, and others. Meetings are held at the residence of Dr. A. Jacobi, on the fourth Friday of each month, excepting July and August, the Chairman being chosen for each meeting by those present. A permanent Secretary is elected for the period of one year by the Medical Staff of the German Hospital and Dispensary. A resolution was passed, at the stated meeting held November 28, 1879, to publish the proceedings of the Society in future.

Resection of Knee-Joint.—Dr. Gerster also presented a boy, aged three and a half, on whom he had performed resection of the knee-joint, for tubercular arthritis, in February, 1879. The joint was exposed by dissecting up a flap anteriorly, with the aid of Esmarch's band, and the patella and the entire capsule were removed. The outer portion of the joint-cavity was found obliterated by the formation of new connective tissue joining the femur to the tibia; the cartilages of both femoral condyles had disappeared; the external condyle was reduced to a mere shell, filled with tuberculous granulations and *débris* of bone-tissue, and communicated with several extensive purulent collections in the soft parts about the joint. The disorganized bone was removed by section, with a strong knife, carried through the sound tissue. The healthy articular surface of the tibia was only superficially pared, the purulent cavities were scooped out, and the whole wound was thoroughly disinfected with a ten per cent. solution of zinc chloride. The ends of the long bones were joined together by two stout leaden wire sutures, the integument was united by catgut sutures, and the rather extensive wound-cavity was thoroughly drained by six tubes. On the fifth renewal of the dressing, the secretions were, owing to a technical fault, found rather offensive, there being, however, no increase of temperature or reaction, thanks to the perfect drainage. The cutaneous wound had healed by first intention; and when the wires were removed, at the end of the sixth week, ligamentous consolidation of the bones had taken place. Convalescence progressed uninterruptedly, the child being up and about, in a silicate bandage, by the twelfth week. The dressing had since been renewed every fortnight, and the little patient was now in excellent health.

Resection of Shoulder-Joint.—Dr. Gerster also presented a case of resection of the shoulder-joint, performed early in June for disease of the bone implicating the joint, the patient being a female of cachectic constitution, in her sixty-fifth year. The diagnosis was based upon the functional disability, the presence of a large subdeltoid abscess, preternatural mobility, and the disappearance of the head of the humerus. The operation was performed by the usual subperiosteal method, the incision being vertical and on the anterior aspect; the section-surface of the bone lay immediately below the tuberosities. The wound was thoroughly disinfected with zinc chloride and drained, the arm was suspended, in moderate flexion, in a dorsal plaster splint, and extension was practiced by the attachment of a weight. As primary union was not looked for, the wound was irrigated, at first four times, later on twice daily, with a two per cent. solution of acetate of alumina,* thus guarding against inflammatory reaction. Active and passive movements were begun by the third week, and a fair degree of functional usefulness was attained. Particular stress was laid upon the importance of perfect drainage, especially in cases in which, for any reason, an aseptic healing process could not be looked for.

Microcephalus.—Dr. Jacobi presented a case of microcephalus in a child, aged three and a quarter years. The cranial measurement from ear to ear was twenty-five centimetres. The child was born with long hair and closed fontanelles; the use of the limbs was entirely wanting, and the extremities were in a state of constant flexion. The first tooth, which was already discolored, appeared in the lower jaw, at the eighteenth month. The division of microcephali into two classes was based on distinctive features of difference. The first class comprised those that presented ossification of the cranial sutures at an early period, the brain remaining normal. In the second class were included microcephali whose cranium and brain, especially at the upper and anterior aspect, showed deficient development. The case presented would belong to the first class.

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* The solution of acetate of alumina is made by dissolving 72 grammes [about 1,080 grains] of alum and 115 grammes [about 1,725 grains] of acetate of lead in 1,000 grammes [about two pints] of water. After filtering, it should be diluted with from three to six times its volume of water for use.

SUPERFECUNDATION.—Dr. SCHARLAU gave the clinical history, and presented the specimens, of a case of supposed superfecundation. A woman, aged thirty years, who had menstruated for the last time on the 22d of February, experienced fœtal movements late in June, i. e., about the seventeenth week, at which time the fœtal heart-beat had also been detected. In the twentieth week, on the 12th of July, symptoms of impending abortion arose. On the 13th, the hæmorrhage having become considerable, the os was dilated, and the membranes were ruptured. The hæmorrhage was arrested, but no expulsion of the uterine contents ensued, the pains gradually ceasing and the os closing. An offensive discharge that followed was checked by the use of carbolized injections, and the patient promptly recovered. An enlargement of the uterus was easily verified by bimanual palpation. The catamenia reappeared on the 18th of August and on the 20th of September following, since which time they had failed to return. Early in November the patient complained of nausea and loss of appetite, which did not yield to the ordinary remedies, and which were attributed to septic absorption of the macerated uterine contents. The introduction of a sponge-tent on the 19th of November, and of another on the 21st, not producing expulsive efforts, mechanical dilatation was resorted to on the 22d, and followed by antiseptic vaginal douches. A repetition of the forced dilatation on the 24th resulted in the expulsion of two distinct ova, each contained in separate membranes and of about two months' development. Dr. Scharlau did not think that the abortive process could now be said to have ended, the uterus still containing the ovum which had lost its vitality last July, and which now was undergoing expulsion. He hoped to lay it before the Society at the next meeting. ═══ Dr. NOEGGERATH remarked that the recent researches of De Sinéty and Slavjanski had demonstrated, contrary to the hitherto accepted theory, that the ripening and escape of ovules proceeded uninterruptedly throughout the whole course of pregnancy; on the other hand, although the penetration of spermatozoa between the decidua vera and the decidua reflexa had not been actually demonstrated, there was nothing to disprove the possibility of such an occurrence, consequently the possibility of a true superfecundation could not so readily be denied. In his opinion, however, the case under discussion could not be considered as properly belonging to this category, inasmuch as the presence of an offensive discharge after ineffectual expulsive efforts gave evidence of fœtal death. Hence the more recent twin conception could only be held to have taken place during the retention of a foreign body *in utero*. It might be assumed that the development of new mucous membrane in the place of the cast-off decidua afforded opportunity for conception; the pregnancy, however, could not continue, owing to the presence of septic uterine contents. ═══ Dr. KUDLICH remarked that he could not agree with Dr. Scharlau in pronouncing cases of the kind infrequent. He instanced the case of a woman in the fifth month of gestation, in which quickening and the fœtal heart-beat had been detected but a short time prior to the cessation of both. Nine months afterward this woman gave birth to a fully developed child, the delivery having been immediately preceded by the expulsion of a macerated fœtus of about five months' development, no menstrual flux having intervened between the periods of conception. ═══ Dr. FRANKL related the history of a case of abortion occurring at the sixth month of pregnancy, with profuse hæmorrhage, and resulting in the birth of a crying child that lived ten minutes. The coagula which were expelled previous to the birth of this child were found, on examination, to contain a fœtus of not more than two months' development. ═══ Dr. Mandelbaum considered the case reported by Dr. Kudlich as one of twin gestation, one of the products of conception having for some reason or other suffered an arrest of development. ═══ Dr. Noeggerath observed that, in the case of Dr. Frankl, as in many other cases, one fœtus had died at an early period, but had remained in a good state of preservation *in utero.*

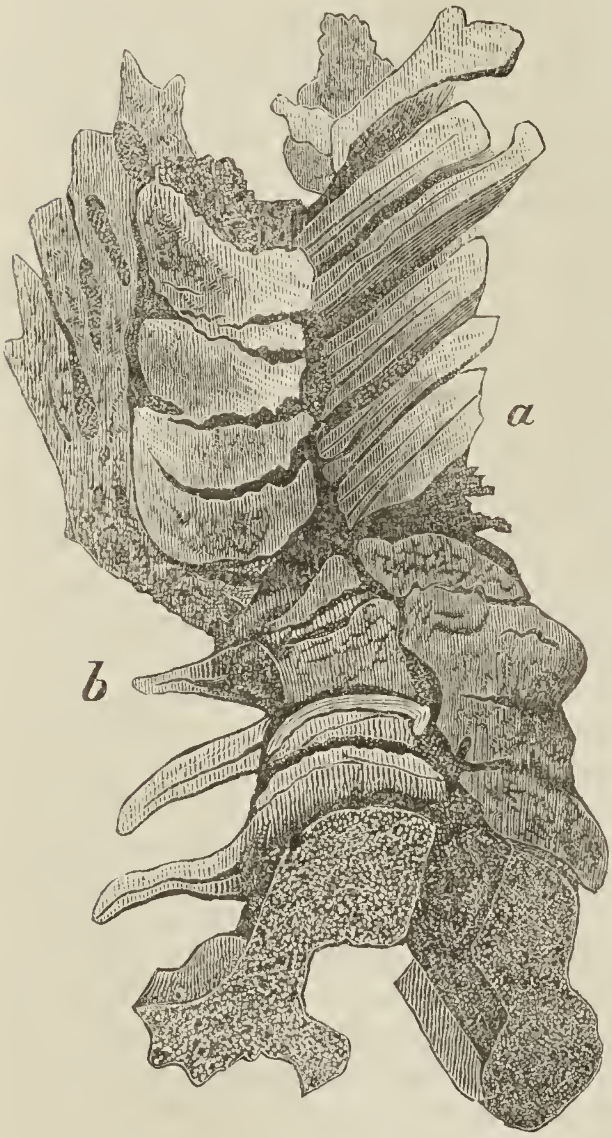
Dr. A. G. Gerster, *Secretary.*

A stated meeting was held December 26, 1879, Dr. H. Kudlich in the chair.

Cerebral Hæmorrhage.—Dr. Lauer presented a girl of seven years, who was slowly recovering from a hemiplegia of the left side, the result of a hæmorrhage in the vicinity of the fourth ventricle. The loss of speech, which had been complete, the diminution of visual power, and the facial paralysis had yielded to treatment with potassic bromide.

Traumatic (Hysterical?) Choreiform Neurosis.—Dr. Schweig presented, and called attention to the decided improvement of, a patient who had been brought before the Society at the October meeting, when the case was designated by Dr. Rudisch as a hemichorea post-hemiplegica. Dr. Schweig regarded it simply as an hysterical reflex neurosis, originating in a traumatic local pleurisy—an assumption that, in his opinion, was borne out by the results of treatment in accordance with that view. The clinical history, briefly recapitulated, ran as follows: The patient injured himself in the left infra-mammary region, by the slipping of a tool; on rising he fell, but did not lose consciousness. When seen by his physician he complained of pain in the region of the injury, and was annoyed by obstinate singultus, to relieve which an hypodermic injection of morphine was administered, which was at once followed by the appearance of peculiar choreic twitching of the left arm. These movements persisted, except during sleep, were limited to the left arm when the patient was undisturbed, but would extend to the other extremities, at the same time becoming much more intense, when he was excited or attempted to carry out definite movements. When his eyes were closed or his ears stopped, these convulsive movements became general, and culminated in his falling to the ground. Vision and hearing were unaffected; the left facial nerve was slightly paretic. After having made an unsuccessful trial of metallo-therapeusis and of hyoscyamine, on the recommendation of an authority who had seen the case in consultation, Dr. Schweig began local treatment by repeated applications of tincture of iodine to the infra-mammary region of the left side, with gratifying results. The choreic movements had almost entirely ceased, a slight tremor only being appreciable when the patient became excited. The assumption of a functional instead of an organic nature of the affection, he considered to be confirmed by the presence, on the left side of the body, of marked analgesia without anæsthesia, by the absence of appreciable muscular atrophy, and by the fact that the temperature of the surface of the affected arm measured two degrees more than that of the right arm. ═══ Dr. Rudisch held to his opinion regarding the organic origin of the malady, and claimed to have achieved the same amelioration of the patient's condition both with and without treatment; the improvement, however, was only temporary, so that he was inclined to doubt if the present improvement would be permanent. ═══ Dr. Jacobi, having subjected the patient to a physical examination, remarked that the assumption of a traumatic pleurisy was not sustained by the physical signs. He attributed the moderate thickening of the integuments to the local use of iodine, and the tenderness on pressure he regarded as of neuralgic and not of pleuritic origin. The rapid improvement under local treatment would justify a diagnosis of hysterical neurosis.

MALFORMATION OF LEG AND FOOT.—Dr. JACOBI presented a prepared specimen of a rare congenital deformity of the left leg and foot, removed by Dr. Lauer, of Morrisania, by amputation, from a boy five years old. Attention was directed to the remarkable state of freshness and general good preservation of the specimen, which had lain in Wickersheimer's fluid* for four weeks. The thigh was quite normally developed; the fibula, the astragalus, the cuboid bone, and the fourth and fifth toes, metatarsal bones, and phalanges were wanting. The remaining toes and the muscular structures were well developed. The tibia, which measured 6½ cm. in length, showed, at a point 2½ cm. above its lower extremity, the mark of an old infraction, and on the integument, at the corresponding site, a cicatricial indentation. The tibia articulated with the os calcis. The arrest of development in this case evidently dated from an early period of intrauterine life, as the infraction of the bone must have taken place at a time when there existed an almost immediate contact between bone and integument, before a sufficient development of subcutaneous tissue had taken place. Dr. Jacobi referred to a specimen observed by him many years ago, which had shown similar characteristics. Thein fraction, with the peculiar appearance of the surface corresponding to it, could be explained, *first*, by the normal predominance of the flexors over the extensors in the fœtus, and, *secondly*, by the almost entire absence of extensors on the fibular side.



SPONTANEOUS LATERAL DISLOCATION OF THE SPINE IN POTT'S DISEASE (specimen sawn through longitudinally).—*a*. Twelfth rib, left side; *b*. Transverse process of first lumbar vertebra.

CARIES OF THE VERTEBRÆ, WITH LATERAL DISLOCATION.—Dr. GERSTER presented a rare specimen of caries of the vertebral column, taken from among the preparations in the Wood Museum. The affection involved the six lower dorsal and the first lumbar vertebræ, which showed an angular curvature of about 45°, with almost complete lateral deviation of the vertebral axis, so that the left margin of the body of the seventh dorsal vertebra, as also the costovertebral articulations of the ninth, tenth, eleventh, and twelfth ribs, on the left side, lay upon the right margin of the first lumbar vertebra, to which they were firmly ossified. The caliber of the spinal canal had not suffered any visible diminution at this point. The history of the case was unknown.

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* Dissolve 100 grammes [about 3 oz.] of aluminium sulphate, 25 grammes [about 275 grains] of sodium chloride, 12 grammes [about 3 drachms] of potassium nitrate, 60 grammes [about 2 oz.] of potash, and 10 grammes [about 2¼ drachms] of arsenious acid in 3,000 grammes [about 6 pints] of water; cool, and filter. To 10 litres [about 21 pints] of the solution, which must be neutral, odorless, and colorless, add 4 litres [about 8 pints] of glycerine and 1 litre [about 2 pints] of methylic alcohol. Specimens that have lain in this fluid for twelve days retain their softness and suppleness indefinitely.

Quebracho. — Dr. Langmann presented several preparations of a new remedy, lately introduced into Germany from Brazil, and known as the *Aspidosperma Quebracho* (*Apocynaceæ*), some experiments with which had been recorded in the "Berliner klin. Wochenschrift," No. 19, 1879, by Penzoldt, of Erlangen, who did not find that it possessed antipyretic properties, as claimed for it in Brazil. Its ultimate effects on frogs and other lower animals, according to Penzoldt, are complete paralysis of the motor system, of central origin, terminating in death by implication of the respiratory muscular system. In cases of dyspnœa and cyanosis, especially if associated with rapid pulse and respiration, depending upon pulmonary affections, Penzoldt found the drug to possess qualities that promised to give it a wide range of usefulness. Thus, in a case of emphysema, complicated by pleuro-pneumonia, a considerable reduction of the frequency of the pulse and respiration, with corresponding relief of the subjective symptoms and a general feeling of improvement, was noted; in similar cases its use was productive of equally encouraging results. Penzoldt attributed this effect to increased absorption of oxygen by the blood, as it was found, on mixing freshly-drawn blood with the fluid extract of quebracho, that the former assumed a much brighter hue than did blood simply exposed to the air. In several cases of emphysema and other pulmonary affections, Dr. Langmann had obtained the same subjective sensations of relief and general improvement, but only in those cases in which a reduction in the frequency of the pulse and respirations followed. Dr. Langmann recommended the employment of the drug, which could be obtained in the form of a fluid extract, prepared from the bark by Ihlefeld, of this city; the strength of this preparation was one to two; the dose, a fluidrachm two or three times daily.

Dr. A. G. Gerster, *Secretary.*

THE NEW YORK CLINICAL SOCIETY.

A regular meeting of the Society was held on December 5, 1879, Dr. E. T. Ely, chairman for the evening; Dr. E. L. Partridge, secretary.

Operations for Deformity of the Nose.—Dr. R. F. Weir presented a patient on whom he had recently operated for a deformity of the nose, resulting from a fall some four or five years previous. The nose had been much displaced to the right, as shown by a photograph exhibited. The disfigurement was considerable, the nostril occluded, and the ductus ad nasum damaged. The operation for the relief of the deformity was performed ten days previous—that known as Adams's operation being first attempted from within the nostrils. This was unsuccessful, and an attempt was then made to replace the bones with the forceps—one blade in the nostril and the other outside. This succeeded on one side, but not on the other. The operator then made an oblique linear incision through the skin at the side of the nose, introduced a fine bone-chisel, and easily cut through the bone, and then tilted it into its place. The nose was now straight, and the incision had entirely healed, though the site of it was still slightly red from the pressure of a little apparatus attached to a forehead-band and designed to counteract any tendency to a return of the lateral displacement. Both nostrils were pervious.

Dr. Weir also exhibited photographs, and related the history of a man who, likewise, had sustained operations for the relief of a nasal deformity, the result of a kick from a horse received years ago. The man was thirty years old. The bridge of the nose was very much depressed, and the nose shortened. The first operation consisted in making Weber's flaps from the cheeks, the attachments being toward the center of the face. A transverse cut was made across the nose, and the tip was drawn down, leaving a space an inch and a half long, upon which the previously described flaps were placed. The second operation was performed some time later, to get rid of some irregularities of the surface which were the result of the first operation. A third operation, similar to the second, to secure the best possible result, was resorted to. The result was very gratifying, the cicatrix having faded. Some plaster-casts were shown illustrating the case. Buisson's method was to obtain flaps from the same source, sliding them, however, instead of twisting them into position.

Brain Syphilis.—Dr. G. L. Peabody related the histories of two cases. The first was that of an Italian woman who was almost comatose when brought into the New York Hospital, and who lived but eight hours after admission, yet had been well until two days previous. At the autopsy, he had found, at the posterior part of the left parietal bone, an elliptical loss of substance, of about three by two inches, involving the inner and in part the outer table. There was no dura mater, and the pia mater was infiltrated with pus, especially over the vertex. There was also abscess of the brain at the depth of an inch and a half. There was found a croupous exudation in the larynx and trachea.

The second case was that of a man who had suffered from headaches and loss of memory, with periods of semi-unconsciousness. He had paralysis of the facial muscles on the left side and partial paralysis of the extremities on the right side. Lesions of the arteries were found at the base of the brain, and the left vertebral was thickened. The walls of the basilar artery also were thickened, and this vessel was the seat of a thrombus filling its anterior half. This thickening involved the endothelium, and was made up of a material like that of gummata. The pia mater also was thickened at the vertex and over the commissure. Between the pituitary body and the internal carotid was a thickened mass composed of material such as is found in gummy deposits.

Salicylic Acid in Pyrexia.—Dr. W. H. Katzenbach read the notes of a case of infantile remittent fever, with a tendency toward the typhoid condition, complicated by croupous pneumonia. A child, a year and a half old, had a chill at 10.30 a. m., November 29th. At 12.45 p. m., pulse 190; temp. 105° F. Physical examination revealed no thoracic disease. Quinine and sponging were employed during the day, and at 10 p. m. the temp. was 101·5° F. At 12.30 a. m., November 30th (two and a half hours later), the temp. was 105·5° F. The cold pack and fanning were then employed, and the temperature steadily fell until 4.30 a. m., when it registered 103·6° F. At 5.30 it was 102·3° F.; at 9 a. m., 102·3° F.; at 5.45 p. m., 107° F. During the entire day the wet pack had been faithfully employed. December 1st, at noon, the temperature was 107° F., while during the day it was between 105° and 106° F. December 2d, temp. between 105° and 106° F. At two in the afternoon of this day, the use of salicylate of soda was commenced, two grains being administered every two hours.

When the employment of this remedy was commenced, the temperature was 105° F.; at midnight it was 102·8° F. December 3d, temp. 103°, and at 7 a. m., 104·3°. Benzoate of soda was now added in the treatment.

December 4th, 9 A. M., temp. 103·2° F. The pulse was ranging between 150 and 160, and had reached 180. The respiration was frequent and grunting. The child was found to have croupous pneumonia of the lower lobe of one lung. At 7.15 P. M., death occurred. There had been no diarrhœa or splenic enlargement, and one chill only. The child had lived in New York, and had been attended for malaria before; was rachitic, the head being large and the fontanelle open. The case showed a very persistent high temperature, upon which the salicylate of soda seemed to have a better effect than anything else, with some beneficial effect upon the pulse. The salicylate was used alternately with the benzoate of soda, the former having apparently the more marked effect, which seemed to be produced within an hour after each dose. There was no depressing effect attending the use of either remedy.

TRIBUTARIES OF THE LONGITUDINAL SINUS.—Dr. WEIR related a brief history which brought out an important clinical fact. A little girl was brought to the Roosevelt Hospital with a compound fracture of the skull, with wounding of the longitudinal sinus. The dura mater was exposed for a space an inch and a quarter in diameter. She did well for several days, and then symptoms of cerebral inflammation appeared. The dura mater was raised up to a level with the outer table of the skull, and the appearance was as if there were fluid beneath it. Three quarters of an inch from the median line a tenotomy knife was introduced, and it entered a large vein. At the same distance from the median line on the other side the same thing happened. A probe was passed into and swept about within a cavity of some size. The child died, and no post-mortem examination was obtained. The hæmorrhage had been readily controlled. An examination of the literature of the subject showed that, not infrequently, sinuses of considerable size had been found in the region of and surrounding the Pacchionian bodies, and that these opened into the longitudinal sinus. It was important to know this in connection with the operation of trephining.

RETENTION OF A PESSARY FOR THIRTY YEARS.—Dr. A. A. SMITH exhibited a glass pessary, which had been given him by a medical friend living out of New York, with the following history: In 1849—thirty years ago—it was introduced into a vagina, and had not been once removed until a short time ago. The woman recently fell down stairs, and subsequently had a bloody vaginal discharge. The physician discovered and removed the pessary, which had become well embedded in the tissues. It was incrusted with calcareous deposit, and was introduced for uterine displacement years ago—with no advice, according to the woman's statement, regarding its subsequent removal. The pessary was concavo-convex, and about three inches in diameter, with a small opening in its center. To effect its removal, a catheter was passed through this opening and traction made upon it. Dr. SMITH called attention to the duty of physicians to impress upon patients the importance of the regular removal of pessaries. ═══ Dr. PEABODY said he had found a pessary, thickly coated with calcareous material, in making a post-mortem examination. He mentioned an instance of the removal of a pessary, by Dr. E. K. Henschel, which had been introduced seventeen years before by the latter's father. ═══ Dr. FOSTER said he had cut out, from the vaginal tissues, a pessary which seemed to have been made of iron. ═══ Dr. SMITH mentioned the removal of one by Dr. Sayre from the uterine cavity after its retention for ten years, and alluded to another case of prolonged retention of a pessary in the vagina, which finally gave rise to an attack of peritonitis. ═══ Dr. WEIR remarked that he had removed a glass pessary eight years after its introduction, and asked whether glass pessaries were better borne than others, to which there was no reply.

Electrolytic Treatment of Nævus.—Dr. G. H. Fox showed an instrument which he had used in cases of superficial nævus. It consisted of a group of needles, and the object of its use was to obtain a large number of punctiform cicatrices by electrolysis. He used a current from eight or ten cells of a zinc-carbon battery. By this method the dark, purplish hue was changed to a pinkish one. In a case under treatment the appearance of the skin, at the present time, was like that from a recent burn, and he expected to see the skin within two months nearly normal in appearance. He made daily applications, the needles being connected with the negative pole, and at each sitting covered a space of about two or three square inches. The operation was not very painful. The needles should be allowed to remain in the skin until some whitening took place in their immediate vicinity. ═══ Dr. Weir asked whether this method was superior to that of Balmanno Squire, to which Dr. Fox replied that he had used the latter method three times, and that twice the result had been disappointing. Professor White, of Boston, had also been disappointed in the result of Squire's method. Dr. Fox stated that he had used the method described by him in subcutaneous nævus with larger needles.

Retinitis in a Baby.—Dr. Ely related the history of a case of inflammation of the retina and optic nerve occurring in a newly-born child. The way in which the case had come under his notice was as follows: He had been engaged in examining the eyes of newly-born infants with the ophthalmoscope, and called at the Foundling Asylum for that purpose. A child had been left at the wrong door the previous night, and, being overlooked, had not been taken in for several hours. It was thoroughly chilled, and was with difficulty restored. It had not been washed since birth. He found marked inflammation of the retina and optic nerve of the right eye, with exudation and hæmorrhagic spots. There was slight divergence of the eyes. The left eye was normal. The inflammation ran a rapid course and subsided. The child was sickly, and might have had syphilis. He did not think that the fact of one eye only being affected argued against the latter disease. He regarded this as probably the only case of the kind observed so soon after birth, and thought it might throw some light upon what was *called* congenital atrophy of the optic nerve. ═══ Dr. Fox asked whether, in the examination of other children, he had found similar disease, and was answered in the negative.

Transitory Albuminuria.—Dr. Peabody mentioned the occurrence of albuminuria in four cases of extensive injury to the skull, which had come under his notice, without the existence of renal disease. ═══ Dr. Smith mentioned the case of a medical friend who could produce in his own person albuminuria, lasting eight or ten hours, by drinking a pint of milk. ═══ Dr. Foster thought this latter case to be of interest when considered in connection with the subject of milk-treatment for albuminuria. He also mentioned Bouchut as authority for the statement that external applications of iodine in children sometimes produced transitory albuminuria. ═══ Dr. J. H. Emerson spoke of the inhalation of turpentine as a cause for the same condition. He remarked also that, it being the custom of most life-insurance companies to have the urine of all applicants for insurance examined, albumen was quite frequently discovered when least suspected; usually, however, in small amounts. The present rule was to reject all such candidates for insurance. Further knowledge upon this interesting subject was of importance to these companies, as well as to surgeons who might discover small amounts of albumen in the urine of individuals upon whom it was desired to perform surgical operations.

Reports on the Progress of Medicine.

QUARTERLY REPORT ON SURGERY.

No. I.

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General Surgery.

1. **Sayre**, L. A.—On the Traumatic Origin of Sub-fascial Deep-seated, or Cold Abscess, commonly called Constitutional or Scrofulous Abscess. "Trans. Med. Soc. N. Y.," 1879, p. 429.
2. **Satterthwaite**, T. E., and **Porter**, W. H.—Observations on One Hundred Cases of Carcinoma. "N. Y. Med. Jour.," September, 1879.
3. **Slacer**, W. H.—Remarkable Vitality (struck by a locomotive). "Buffalo Med. and Surg. Jour.," 1879–'80, xix., p. 107.
4. **Mathieu**, E., et **Strauss**, H.—Coxalgie. "Dict. Encycl. d. Sc. Méd.," Par., 1879, Is., xxii., p. 112–295.
5. **Morton**, W. J.—Traumatic Dislocation of the Fifth Cervical Vertebra; One Week's Duration; Immobility and Distortion of Head and Neck; Paralysis of Arms and Legs; Inability to swallow Food; Reduction by Suspension by the Head, and Rotation of the Body. "Med. Rec.," 1879, xvi., p. 389.
6. **Longstruth**, M.—Dislocation of Cervical Vertebræ, with Injury of the Spinal Cord. "Trans. Path. Soc., Phila.," (1878), viii., 3, 1879.
7. **Lannelongue**, O.—De l'ostéomyélite chronique ou prolongué. "Arch. gén. de Méd.," vol. ii., 1879, p. 257.
8. **Hueter**, C.—Heilung bei Gangræna Septica Acutissima (Gangrène Foudroyante). "Centralbl. für Chir.," August 9, 1879, p. 522.
9. **Gross**, S. W.—A Contribution to the Study of True Adenoma of the Mamma. "Amer. Jour. Med. Sc.," lxxviii., 1879, p. 459.
10. **Gamgee**, S.—Clinical Lectures on Wound Treatment, by Dry and Infrequent Dressing, Rest, and Pressure. "Lancet," 1879, ii., 456.
11. **Eberman**, H. F.—Case of Fracture of the Third Cervical Vertebra. "Amer. Jour. Med. Sci.," 1879, lxxviii., 590.
12. **Holmes**, T.—On the Results of the Treatment of Compound Fracture of the Leg in this [St. George's] Hospital, with Special Reference to Lister's Antiseptic Method. "St. George's Hospital Reports," vol. ix., 1877–'78, p. 651.
13. **Ollier**.—Nouvelle scie à résection. Scie à volant à transmission élastique. "Bull. et Mém. de la Soc. de Chir.," tome v., 1879, p. 811.
14. **Chassaignac**.—Mémoire sur les abcès des os. "Bull. et Mém. de la Soc. de Chir.," tome v., 1879, p. 837.
15. **Antiseptic Surgery**.—Discussion in South London District of Metropolitan Counties Branch: Speeches of Mr. MacCormac, Mr. Bryant, Mr. Barwell, Mr. Spencer Wells, Mr. T. Smith, Mr. Holmes, and Professor Lister, F. R. S. "British Medical Journal," December 6, 1879, p. 906.
16. **Antiseptic Surgery**.—Editorial. "Br. Med. Jour.," December 13, 1879, p. 942.

17. ANTISEPTIC SURGERY.—Editorial. "Lancet," December 20, 1879, p. 914.
18. ANTISEPTIC SURGERY.—Editorial. "Medical Times and Gazette," December 20, 1879, p. 691.
19. STIMSON, L. A.—An Experimental Inquiry into the Value of Carbolic Spray as a Preventive of Putrefaction. "Amer. Jour. Med. Sci.," January, 1880, p. 83.

12. Arguing on a basis of one hundred and sixty-two compound fractures of the leg, "treated to a conclusion," Mr. Holmes takes occasion to express his own views with regard to antiseptic surgery. The conclusions at which he arrives are the same as those of most American surgeons, and are worthy of note as expressing the status to which Mr. Lister's theory and practice are sure to be ultimately reduced. He admits the great improvement observed in the results of injuries and operations since Mr. Lister began his attempts to secure the healing of wounds without putrefaction, but denies that this is due entirely to the method itself, since it is noted in the practice of those who repudiate Mr. Lister's teaching. "In fact, all wounds and injuries are now much more carefully treated than they were some years since, and the effect of such increased care must show itself in the practice of those who follow the old methods of treatment, as well as in those who have adopted the new system. The question is, whether the results of the antiseptic system are so decisively superior to those of other methods of treatment as to show that it is the only system adapted for general use in a hospital." The fractures occurring in the service at St. George's Hospital have been treated by no one method to the exclusion of others, Mr. Holmes's idea having been to give all methods a fair trial and thus form an unbiased judgment as to the worth of the antiseptic method in particular. The result has been that he has formed "a strong general impression that the antiseptic method is superior to the others; at any rate during the dangerous period which follows the injury, in which the occurrence of surgical fever is so common under ordinary treatment, and during which erysipelas, diffuse inflammation, sloughing, extensive suppuration, and general blood-poisoning are also common." With regard to the question whether this treatment shortens the period of recovery, though admitting the insufficiency of his data, he does not think that the average stay in hospital was below that under other methods. In his own practice the antiseptics are generally left off in about three weeks after the injury.

The rarity of secondary amputations of late years is not attributed to the antiseptic treatment. "At least it must have some other cause as well." With regard to the practice of sealing up the wound with lint steeped in the blood, or collodion, or other substances, he gives the result of sixty cases and says, "the fact that, out of these sixty cases, eight occurred in which the wound is said to have healed without suppuration, or 'at once,' and eight others in which the rapid union of the wound is specially dwelt on in the notes, ought not to be left out of sight, since it shows that, successful as the antiseptic treatment undoubtedly is, it is not the only successful method; but that in healthy hospitals cases are treated with perfect success upon methods which we should expect to be not only unsuccessful, but even deadly, if the theory on which the antiseptic practice is based were true. I think it the more necessary to make this observation since very exaggerated estimates have been formed of the difference which the introduction of antiseptic surgery is believed to have made in the results of treatment in ordinary cases. These estimates are mainly based on statistics published by foreign surgeons, from hospitals where little attention seems previously to have been paid to the hospital management, and where, consequently, pyæmia and erysipelas were allowed to prevail unchecked. In such circumstances the introduction of the antiseptic system must effect a great change, since, if carried out with earnestness (as on its first trial it is sure to be), it compels care, cleanliness, drainage of wounds, and absence of accidental contamination; in fact, effects a complete reversal of the former careless system or no system.

"Though, therefore, I fully believe that the method of dressing recommended by Mr. Lister is the best and safest in all cases in which it can be carried out, I do not think that its superiority is such as to entitle us to consider it a thing of a different kind, but rather as a plan which enables us more fully to secure the essentials of all principles of good dressing; and I believe that there are cases of compound fracture in which other methods are preferable. Such cases may, I think, be divided into two classes. The first class is where there is obstinate oozing; and in these, if the oozing is not very great, pressure is indicated; if it is, either free exposure to the air, or irrigation with ice-cold water, or the application of ice, or some styptic solution. The second class is where, from delirium, agitation of mind, or natural restlessness, the application of any complicated dressing is difficult. In these cases also, the treatment by sealing the wound is very useful. And I am by no means sure that in the slighter cases the antiseptic treatment offers any such unquestionable advantage over that by sealing the wound as its more zealous advocates would claim; though I do, on the whole, believe that it is safer, and therefore I usually employ it. This, I fear, will be thought a lame and half-and-half account of a treatment for which such wonderful results are claimed."

In closing, he speaks of the good results which have been obtained in other hospitals than St. George's, where the old and new treatments have been tried side by side, and says: "I do not think it can fairly be objected to this comparison, that the surgeons of St. George's are not 'antisepticians,' and therefore do not carry out the system correctly. There has been somewhat too much of the character of a 'specialty' given to the antiseptic treatment. There is nothing really mysterious or difficult about that treatment, though if it could only be carried out by adepts it would *ipso facto* be unfitted for general use. We, however, have studied and practiced the antiseptic method for many years, and, as far as I can judge, with the same results as have been obtained elsewhere. That these results are excellent, I freely admit; but they have not as yet been proved to be so far superior to those of the former plans of practice in really good and healthy hospitals as to lend any support to the idea that the method rests on different principles from those which it would supersede."

15. In this discussion, which is reported nearly in full in this journal and the succeeding number, December 20, 1879—a fact by the way for which it takes credit to itself in its editorial columns, and with justice, its report being in reality much more complete and satisfactory than that of either "The Lancet" or "The Medical Times and Gazette"—the whole ground of antiseptic surgery is thoroughly gone over. Mr. MacCormac, after a few general remarks on the theory of Pasteur, and the practice based upon it, enters at once into statistics. Of forty-five operations for the division of various bones for removal of deformity, thirty of which involved the knee-joint, every one "recovered in the speediest, easiest, and safest manner possible." All cases of compound fracture recovered except one, and those of the leg almost as though they had been simple; and so on through the range of major operations, ending with the following glowing tribute: "Is there any other method, even that with the 'simplest, safest, best of antiseptics,' clean water, which will permit the surgeon to view a mass of dead blood lying in an open wound, being transformed day by day before his eyes into living tissue? I do not mean the blood is vivified, but amœboid cells invade it, eat it up, as it were, and flourish in its stead. If this be

true, and I suppose its truth will not be denied; if the great joints may be opened with absolute impunity by the surgeon's knife; if such formerly fatal injuries as gun-shot wounds of the knee may be saved amid the difficulties of an army in the field; if ovariotomy be made more successful in the hands of experts, who operate on such cases by hundreds, and what is, to my thinking, more important, the operation is rendered safer and more successful in the hands of other surgeons; if, in injuries of the head, in ordinary amputations and excisions, and operations of various kinds, in compound fractures, not only is the risk of life diminished, but the recovery of the patient marked by a minimum of pain, fever, and suppuration; then a gain has been accomplished for surgery which it is scarcely possible to characterize; and I do not know which to admire the more, the scientific mind which has grasped a great principle and applied it, or the character of the man who has unswervingly pursued the object of his life, patiently perfecting, one by one, the means adapted to procure the end in view. To John Hunter we owe our idea of the harmlessness of subcutaneous injuries, and all the great advantages to surgery that are derived from the application of this knowledge; and if in time our ordinary surgery shall become as safe as subcutaneous surgery, this we shall owe to Lister."

Mr. Bryant admitted the great improvements in surgery in the last twenty-five years, but called attention to the fact that such improvements were found in hospitals where antiseptic surgery, as illustrated by Lister, was not practiced. He claimed to be an antiseptic surgeon, but considered that any surgery based on theories of neutralizing the results of putrefaction must be looked upon as antiseptic.

Mr. Spencer Wells "had gone over the eighty-four cases in private practice which he had had before commencing antiseptic surgery by the use of carbolic acid, and compared them with the eighty-four cases which had followed since, and he had to confess that the results were startling to himself. The statistical result was, that in the eighty-four cases since adopting carbolic acid in ovariotomy there had been only six deaths, making seventy-eight recoveries; whereas in the previous eighty-four cases in private practice, with all the care he could give to them, there were twenty-one deaths, leaving only sixty-three recoveries. And as one went on and became still more accustomed to the method and details of antiseptic treatment, and avoided mistakes, then one got the long run of thirty-eight cases without a single death; and adding to that five more of other important operations, he got forty-three without a death, and that, he thought, spoke volumes in favor of Professor Lister's system."

Mr. Holmes followed with a few remarks of the same general bearing as those in the last volume of St. George's Hospital reports, and the meeting closed with a very strong statement of results by Professor Lister.

16. Referring to the discussion reported in the "British Medical Journal," December 6, 1879, the editor goes on to say: "The contribution made by Mr. MacCormac to the records of antiseptic surgery is the most important that has yet been made in this country by any one except Mr. Lister himself, and the meeting will remain an historic event in the records of British surgery. . . . We may even say that from this moment the cause of antiseptic surgery is gained. . . . We have already pointed out more than once that, to those who have raised objections to the successes claimed for antiseptic surgery, the question of figures was very far from being the most critical test. The inherent fallacies of figures, the innumerable deceptions connected with all surgical statistics, the variety of elements entering into them which it is impossible to reduce to a uniform standard, all contribute to render them untrustworthy. Antiseptic surgery, however, has well stood even the test of statistics; and it is for Mr.

Savory, Mr. Bryant, and those who have seriously attempted to dispute the astonishing feats of antisepticism, to reply to the overwhelming evidence brought forward by Mr. MacCormac, Mr. Spencer Wells, and Mr. Lister. But the real proofs that antiseptic surgery has introduced into science and into practice a new principle are those on which Mr. Lister has always insisted, and which he once more brought into prominence on this occasion. Let any surgeon under any other system produce cases in which a long series of the most tremendous operations in surgery have been effected, almost without raising the clinical thermometer three degrees, without traumatic fever, without septic irritation, without any of the indications of danger which follow ordinarily the surgical invasion of the tissues; let him produce psoas abscesses following the course which they do follow under antiseptic surgery; let him show blood-clots organizing and dead tissue undergoing reabsorption; let him show a long series of great operations in which the presence of pus in any form is an exception. This can not be done. It is the exclusive appendage [*sic*] of antiseptic surgery; and no one can have seen any series of great operations performed under strict antiseptic precautions without frankly admitting that antisepticism is, as Mr. Lister said, not merely an improved dressing, but a new principle, of which the dressing is only a mechanical application."

19. While admitting the great advantages of Lister's method of dressing wounds, the author confines his attention in this article to the simple question of the efficiency of the carbolic spray as a preventive of putrefaction. The liquid employed for determining this question was fresh, clear, acid urine, boiled and filtered. "In the first series of experiments fourteen three-quarter-inch test-tubes were purified by heat, and half filled with the boiling urine. Eleven of them were then placed in a water-bath at a temperature of 212° F., and kept there for about three quarters of an hour. (1.) Two of them were then closed hermetically by melting the narrow tube into which the upper extremity of each had been drawn. This was the first controlling experiment, the object of which was to determine the purity of the liquid. The sealing of the tube would certainly prevent subsequent accidental infection, and therefore if the liquid were pure it would remain bright. (2.) The three tubes which contained boiling urine, but which had not been placed in the water-bath, because that was not considered necessary in this case, were left upright in a rack for an hour and a half, and then plugged with cotton wet with alcohol. This was the second controlling experiment, to show that the exposure was sufficient to cause putrefaction. (3.) Three of the tubes in the water-bath were removed and closed with plugs of cotton wet with alcohol. This was the third controlling experiment, to determine the sufficiency of the precautions taken against subsequent accidental impregnation. If the liquid in these tubes remained bright it would prove that a cotton plug was sufficient to prevent the entry of germs. Three other tubes were closed with light layers of antiseptic gauze tied over their mouths, partly as a modification of the first and third controlling experiments, and partly as a side issue to throw light upon the filtering properties of the gauze. (4.) Finally, the remaining three tubes were taken out of the bath under the spray, suspended from a rod, cooled rapidly by dipping them into water, left under the spray for an hour and a half, and then closed with plugs of cotton wet with alcohol, as in the third controlling experiment." The boiler of the spray measured four and a half by three inches. All the water it contained was boiled away in an hour and a half, and fifteen ounces of a five per cent. solution of carbolic acid were consumed. The atomizer was at a distance of three and a half feet from the tubes and one foot above them. The floor of the room was swept during the spraying

to raise plenty of germs. "The level of the experimental fluid was two and a half inches below the mouth of the tube; and, as the spray caused a slight current of air across the latter, it seemed probable that dust which entered the mouth would lodge upon the side of the tube, and that the experiment might thus be vitiated by the accidental failure of the germs to reach the liquid, even if they passed unharmed through the spray. I therefore dislodged with a purified rod, and still under the spray, a small filament of dust that had fallen upon the edge of one tube, and saw it reach the liquid; and I also inclined another tube so that its contents should wash its inner surface above the level of the liquid. It must be remembered that the mouth and interior of the tubes had been thoroughly purified, first by scorching and then by the boiling urine. The remaining tube was left undisturbed." On the ninth day the tubes of the first and third controlling experiments had remained bright; two of those which had been exposed unprotected were turbid; and, of the three exposed under the spray, the one that had received the flake of dust from the mouth and the one that had been inclined were turbid, and the remaining one was clear. It was thus demonstrated that the liquid was pure at the time of the experiment, that the plug of cotton-wool was sufficient to prevent accidental contamination, and that, consequently, as the tubes of the main experiment must have received the germs which caused them to become turbid during the time they were under the spray, the latter had not been sufficient to prevent their putrefaction." To meet the objections that might be urged against the intentional introduction of dust with a tube, beaker-glasses were used in another series of experiments, with like results.

HEAD.

1. Baker, A. E.—Four Excisions of the Tongue, with Preliminary Tracheotomy in three. "Lancet," 1879, ii., 234.
2. Lannelongue.—Cas de bec-de-lièvre congénital médian et complet de la lèvre inférieure compliqué d'une division de la mâchoire inférieure. "Bull. et Mém. de la Soc. de Chir. de Paris," N. S., v., 1879, 617.
3. Lidell, J. A.—On Contusions of the Cranial Bones. "Amer. Jour. Med. Sci.," lxxviii., 1879, 398.
4. Lannelongue.—Communication sur les fractures indirectes de la mâchoire supérieure; disjonction des maxillaires avec déchirure de la muqueuse buccale. "Bull. et Mém. de la Soc. de Chir. de Paris," 1879, 668.
5. Duncan, J.—An Improvement in Staphylorrhaphy. "Lancet," 1879, ii., 502.
6. Gibson, J. E.—Pistol-shot Wound of the Brain; Patient lives six years with the Bullet in the Brain. "Nashville Jour. Med. and Surg.," 1879, xxiv., 207.
7. Hayes, J. R.—Removal of the whole of Right Parietal, and half the Frontal Bones, the Result of Burn; Skin grafted on Surface of Dura Mater; Recovery. "Brit. Med. Jour.," 1879, ii., p. 321.
8. Hueter, C.—Heilung einer schweren Schädelverletzung mit Umstechung der Art. Meningea Media. "Centralbl. für Chir.," August 23, 1879, p. 553.
9. Hun, E. R.—Cavernous Angioma of the Tongue. "Trans. Med. Soc. New York," 1879, p. 390.
10. Péan.—Contracture des mâchoires. "Paris Méd.," 2 S., v., 1879, p. 163.
11. Verneuil.—Ligature préalable de l'artère linguale dans l'extirpation des tumeurs de la langue. "Gaz. d. Hôp.," 1879, p. 956.

12. **Desprès.**—Tumeur veineuse du plancher de la bouche. Anévrysme artério-veineux. Ligature des deux artères linguales. "Bull. et Mém. de la Soc. de Chir.," tome v., 1879, p. 794.

3. The consequences of contusion of the cranial bones are briefly enumerated as follows: (1.) Primary necrosis of the injured portion. (2.) Induration and hypertrophy. (3.) Suppurative osteo-myelitis, and, as a result, pyæmia. (4.) Osteo-porosis, caries, and inflammatory necrosis with corresponding exfoliation of dead bone. (5.) Meningitis and encephalitis. (6.) Puffy swellings of scalp and sub-pericranial collections of pus. (7.) Protracted inflammation of the contused pericranium, or osseous or medullary tissues, with occasional reopening and suppuration of the wound.

Each of these classes is illustrated with the history of a case and comments. With regard to treatment, the general rules for the management of head injuries are carried out, with a preference toward active purgation and general blood-letting in selected cases. The puffy tumor under the scalp which indicates the formation of matter between the dura mater and bone should be met by early incision. Trephining for intracranial abscess following contusion, though very successful in the hands of Pott, has not been so with other surgeons. It was tried twelve times in this class of injuries during our late war without success. In five, pus was found between the skull and dura mater; in one, beneath the dura mater; and in two, in the substance of the brain.

EXTREMITIES.

1. **Macnamara, C.**—Clinical Lectures on Suppurative Periostitis and Epiphysitis. "Lancet," ii., 1879, p. 231.
2. **Gross, S. W.**—Sarcoma of the Long Bones; based upon a Study of One Hundred and Sixty-five Cases. "Amer. Jour. Med. Sci.," lxxviii., 1879, p. 338.
3. **Konig.**—Ueber die Methode der Verbindung der verticalen Suspension mit dem Esmarch'schen Verfahren zum Zweck der Erzielung blutloser Operationen. "Centralbl. für Chir.," August 16, 1879, p. 537.
4. **Thornton, Daniel.**—Case of Popliteal Aneurism, cured in twenty-eight hours by Compression of the Femoral, after application of Esmarch's bandage for one hour. "Lancet," August 16, 1879, p. 238.
5. **Von Lesser, L.**—Operative Behandlung des Pes Varus Paralyticus. "Centralbl. für Chir.," August 2, 1879, p. 497.
6. **Spence, J.**—On the Cause of Eversion of the Limb after Fracture of the Neck of the Femur. "Br. Med. Jour.," 1879, ii., p. 534.
7. **Morgan, G. B.**—On a Case of Excision of the Knee, in which Contraction of the Limb to a Right Angle occurred sixteen months after Firm, and apparently Osseous, Union had taken place. "Br. Med. Jour.," 1879, ii., p. 317.
8. **MacCormac, W.**—Excision of the Shoulder and Elbow Joints for Gunshot Wounds in the Same Arm, with final result. "Br. Med. Jour.," 1879, ii., p. 317.
9. **Sayre, L. A.**—The Diagnosis and Treatment of Joint Diseases in their Various Stages. "New York Med. Jour.," 1879, xxx., p. 502.
10. **Poore, C. T.**—Three Cases of Removal of the Os Calcis. "Med. Record," 1879, xvi., p. 387.
11. **Owen, E.**—On the Cause of Eversion of the Limb after Fracture of the Neck of the Femur. "Br. Med. Jour.," 1879, vol. ii., p. 322.
12. **Macnamara, C.**—Clinical Lecture on Synovitis and Granular Disease

of the Synovial Membrane; Pulpy Degeneration, Scrofulous Synovitis. "Indian Med. Gaz.," 1879, xiv., p. 213.
13. MASON, E.—A case of Dislocation of the Patella upon its Axis. "Med. Record," 1879, xvi., p. 389.
14. HAMILTON, F. H.—A Study of about One Hundred and Twenty Cases of Fracture of the Patella. "Hosp. Gaz.," 1879, vi., p. 532.
15. MORGAN, J. H.—On the Opening and Drainage of Joints. "St. George's Hospital Reports," vol. ix., p. 763.
16. EXCISION OF THE HIP-JOINT.—Clinical Society, December 12, 1879. "Medical Times and Gazette," December 20, 1879.

ABDOMEN.

1. BYRD, W. A.—Strangulated Hernia, with Fæcal Fistula, treated by a New and Simple Enterotome and an Anaplastic Operation. "Med. and Surg. Reporter," 1879, xli., p. 361.
2. BROCHIN, A.—Des opérations qui se pratiquent sur l'estomac (gastrotomie, gastrostomie, gastrectomie), et, en particulier, de l'ablation des tumeurs de cet organe par la gastrectomie. "La France Méd.," 1879, xxvi., p. 530.
3. KRONLEIN, R. U.—Casuistische Beiträge zur operativen Chirurgie des Digestionstractus. "Berl. klin. Wochenschr.," 1879, xvi., p. 505.
4. LITTLEWOOD.—Epithelioma of Pharynx and Œsophagus: Gastrotomy; Death nine days after. "Lancet," 1879, ii., p. 466.
5. MOORE, M.—Cancer of Œsophagus: Gastrotomy; Death eight days after. "Lancet," September 20, 1879, p. 425.
6. SPANTON, W. D.—On the Immediate Cure of Inguinal Hernia by a New Instrument. "Brit. Med. Jour.," 1879, ii., p. 323.
7. SMYTH, A. W.—Extirpation of a Floating Kidney. "New Orleans Med. and Surg. Jour.," August, 1879.
8. TEALE, T. P.—Treatment of Intestinal Obstruction by Exploration of the Abdomen. "Brit. Med. Jour.," September 27, 1879, p. 494.
9. STILZNER.—Anus Præternaturalis und Anus Artificialis. "Jahresb. der Gesellsch. für Natu. Heilk. in Dresden," 1878–'79, p. 66.
10. DUPLAY.—Rétrécissement cancéreux du gros intestin; symptômes d'occlusion intestinale; entérotomie; mort. "Arch. Gén. de Méd., 1879, clxiv., N. S., p. 207.
11. JONES, C. H.—Clinical Lecture on a Case of High Temperature with Rapid Pulse and Delirium, depending on the Presence of Scybala in the Rectum. "Lancet," August 16, 1879, ii., 229.
12. YOUNG, J. W.—Strangulated Hernia relieved by Tearing or Stretching the Abdominal Rings. "Med. and Surg. Reporter," xli., 1879, p. 337.
13. O'HARA, M.—Excision of Four Inches of the Upper Part of the Rectum in consequence of Intussusception caused by a Villous Tumor. "Trans. Path. Soc.," viii. (1878), p. 26., Phila., 1879.
14. VAN BUREN, W. H.—On Phantom Stricture and Other Obscure Forms of Rectal Disease. "Amer. Jour Med. Sci.," October, 1879, p. 317. p. 400.
15. SIMS, J. M.—Cholecystotomie pour l'extraction des calculs dans l'hydropisie de la vésicule biliaire. " Rev. de Litt. Méd.," iv., 1879,
16. THOMAS, H.—Successful Extraction of a Halfpenny retained in the Œsophagus Twenty-Eight Days. "Brit. Med. Jour.," December 6, 1879, p. 891.
17. LUNN, J. R.—Retention of a Farthing in the Stomach for Seven Months. "Brit. Med. Jour.," December 6, 1879, p. 891.
18. STIMSON, L. A.—A Contribution to the Study of Cancer of the Rectum. "Archives of Medicine," August, 1879, p. 1.

19. Van Buren, W. H.—Ulcer of the Rectum. "Archives of Medicine," December, 1879, p. 231.
20. Duret.—Recherches sur la pathogénie des hémorrhoides. "Arch. Gén. de Méd.," December, 1879, p. 641.
21. Duplay, S.—Du traitement chirurgical de l'occlusion intestinale. "Arch. Gén. de Méd.," December, 1879, p. 709.

7. In a note at the end of an abstract of this case in the "American Journal of Medical Sciences," October, 1879, p. 575, it is stated that this is the eighteenth case of the kind which has been recorded in that journal, the mortality of the whole being fifty per cent.

8. An answer to Mr. Messenger Bradley's criticism of a former article of the author's on the same subject. It ends, however, with the following clear statement of the ground now held by most surgeons regarding this operation: "It must needs be that, in the present state of 'peritoneal surgery,' exploration of the abdomen should be reserved, and rightly, for the most hopeless cases of intestinal obstruction, such as were all those which I have reported. Many will prove to have been hopeless from the beginning, some will prove to have been submitted to operation too late; a few will recover as a direct result of the operation. As we gain experience and confidence in our means of diagnosis and treatment, we shall rescue from death some of the patients now lost by delay. Is it too much to hope that we are now marching by means of failure onward to success in 'peritoneal surgery'? May we not take a lesson from the position of the ovariotomy of the present as compared with ovariotomy in the past?"

14. The author's definition of phantom stricture is best given in his own words. "The presence of rational signs, and often of fallacious physical signs, of organic stricture, causing belief in the existence of the disease in a case in which it is in reality non-existent." The causes most apt to lead to this error in diagnosis are dwelt upon at length, and may be briefly enumerated as follows: 1st. The constipation and difficulty of defecation so common in dyspeptic and hypochondriacal subjects; 2d. The obstruction encountered when a bougie is passed into a healthy rectum, from contact with a fold of the gut or impingement upon the promontory of the sacrum; 3d. What is known as the "third sphincter," an organ to which anatomy and physiology have been equally unsuccessful in assigning either certainty of location or certainty of function. With regard to this band of muscular fibers, the author seems to accept the conclusions of Dr. Chadwick, of Boston, whom he quotes, that it is simply a bundle of the ordinary muscular fibers of the intestine, differing from the rest only in volume and power, and that its function is "not to obstruct the gut and arrest its contents, but, like all other circular intestinal fibers, to urge by their peristaltic contractions the contents of the bowel onward"; 4th. The "pipe-stem" stools, which are not a sign of stricture, except in cases where by prolonged straining the stricture has been brought low enough down toward the sphincter to impress its final stamp on the evacuations. The shape of the passages is regulated by the sphincter, and in true stricture the fæces, when solid, are in small lumps resembling sheep-dung; 5th. Obstruction of the gut by pressure from without as a result of pelvic cellulitis, or of contracting bands of pelvic connective tissue; 6th. Uterine tumor; best illustrated by the following case, which from its great singularity we transcribe entire: "A young lady of twenty-five or thereabouts, was brought to me from the country by her mother, with the complaint that she could not relieve her bowels while sitting in the usual position, and had been gradually compelled to resort to the use of the bedpan, and could only secure a passage while lying on her back after taking an enema. I could find nothing wrong on examining her rectum as she lay upon her side, but, induced, by her strong conviction of the presence of an

obstacle, to examine the bowel with the finger while she was in a squatting position, I recognized that a globular tumor, which I took for the fundus of the uterus, was in this position, forced firmly backward into the hollow of the sacrum so as to completely obstruct the passage through the rectum. This tumor proved, on further examination, to be a fibroma, estimated to be of about the size of a billiard ball, which had developed in the posterior wall of the uterus."

The most valuable part of this very important contribution to the literature of rectal diseases is that in which the question of spasmodic stricture is discussed. Without following the line of argument and citation of authorities, we will simply state the author's conclusions: "that neither in imaginary nor in actual stricture of the rectum is muscular spasm an element of any real practical importance. As regards the œsophagus, the urethra, and other canals with muscular walls, this assertion might be perhaps difficult to justify; and the older writers have taken advantage of the analogy to assume, without adequate proof, the existence of spasmodic stricture of the rectum. But, by the aid of anæsthetics, this has been demonstrated to have a very doubtful existence, except perhaps as an epiphenomenon or additional feature of organic stricture." Again, "The fanciful theory that spasm of the voluntary muscle surrounding the membranous urethra comes by reflex action from organic stricture formed nearer to its meatus, which has been made the basis of so much doubtful practice in this country, is happily, for anatomical reasons, not applicable to the rectum."

18. An answer to the question when it is proper to attempt to cure by extirpation, and when it is best to be satisfied with the usual means of alleviating the sufferings (including lumbar colotomy) caused by cancer of the rectum. From a study of the pathological anatomy, the author concludes that "there is no fundamental difference in the anatomical elements of these tumors to explain the difference in the results of the operations, but the tendency to local return seems to have depended entirely upon the extent to which the disease had involved the muscular coat of the intestine and the adjoining tissues." From a study of the clinical history, however, he concludes, "1st, that narrowing of the bowel sufficient to be a distinct obstacle to the passage of fæces is accompanied by implication of the deeper tissues to an extent which renders prompt local return of the disease certain; and 2d, that, when the disease exists as a circumscribed, raised patch with an exuberantly granulating surface, its removal may effect a radical cure."

19. The causes of ulceration of the rectum are divided into: 1, local traumatism; 2, dysentery; 3, scrofula and tubercle; 4, chancroid; 5, syphilis; 6, cancer.

1.—Local traumatisms are: *a*, abrasion from prolonged contact of hardened fæces; *b*, foreign bodies either swallowed or introduced through the anus; *c*, contact of instruments employed in removing impacted fæces or foreign bodies; *d*, failure in healing of surgical injuries; *e*, laceration from straining at stool; *f*, bursting of an hæmorrhoidal vein; *g*, inflammation of internal piles; *h*, lodgment of irritating particles in the *lacunæ* just above the internal sphincter; *j*, bruising of the walls of the rectum between the sacrum and the child's head in parturition ("a reason why women are so much more frequently the subjects of these diseases than men").

2.—Dysentery. While admitting that there are undoubted cases of rectal ulcer from dysentery, the author believes them to be rare, and calls attention to Annandale's case in which an ulcer was the cause of the dysenteric symptoms, instead of *vice versa*.

3.—Scrofula and tubercle. The former, significant of defective nutrition, acts by retarding the healing of a local traumatism, which thus becomes an ulcer; the latter, as "a directly exciting cause of ulceration—as when tubercular deposit actually takes place in and around the glandular follicles of the rectum and provokes suppuration." Under this head are included also *lupus exedens*, and *rodent ulcer*, besides ulceration from defective nourishment, in which there was no room for suspicion of scrofula.

4.—Chancroid. Found chiefly in the lowest class of prostitutes; due to the trickling down of the discharge from a chancroid on the vulva; liable to become phagedænic and extend into the rectum and cause stricture; and certainly diagnosticated by the test of auto-inoculation.

5. — Syphilis. Appearing: *a*, as a chancre (sodomy); *b*, mucous patch, and secondary ulcerations, not proved, but probable from analogy; *c*, gummy deposits and ulcerations; *d*, "ano-rectal syphiloma," described by Fournier as "a thickened and lumpy condition of the anus and rectum, which does not tend to ulceration, and which is, probably, gummatous exudation in a diffused and infiltrated form"; *e*, "in certain cases where the syphilitic diathesis is present, but without any obvious symptoms of active disease, a simple traumatism may in certain cases, during the process of repair, take on an unhealthy aspect, and assume the characters of a syphilitic ulcer. In this way a simple traumatism of the rectal mucous membrane might take on a syphilitic character."

6.—Cancer.

21. Considering the utility of surgical interference in cases of intestinal obstruction as sufficiently proved by the results, M. Duplay goes on to consider the comparative advantages of and the indications for the two operations, laparotomy and enterotomy, or colotomy; the former, when successful, insuring a complete cure, while the latter is in general only palliative, the cause of the obstruction still persisting. In a general way, laparotomy is applicable to all cases in which the obstruction is susceptible of removal, and enterotomy to those in which from its nature it is impossible that it should be removed. The numerous causes of intestinal occlusion are classified as follows: 1. Occlusion by foreign bodies, as hardened fæces, calculi, and substances introduced from without. 2. Occlusion by compression (tumors, etc.) 3. Occlusion by internal strangulation, e. g., intra-abdominal hernia, strangulation by a cord of mesentery, by a fibrous band, a diverticulum of intestine, etc. 4. Invagination. 5. Volvulus, or torsion of the intestine. 6. Occlusion by lesions of the walls: hypertrophic, cicatricial, or cancerous retractions. Laparotomy is especially applicable to the third and fifth of these; enterotomy to the first, second, and sixth; the invaginations still occupy debatable ground. But the difficulty is precisely to make the differential diagnosis between these varieties; and, to assist still further the operator, the clinical distinction is made between acute and chronic obstruction. The acute includes invagination, volvulus, and internal strangulation in its many varieties, and in both of the latter laparotomy is indicated, it being unnecessary to decide before operation whether the strangulation be due to a band, an intestinal diverticulum, a mesenteric, mesocolic, or parietal hernia, etc. With regard to acute invagination, the indication for laparotomy is more debatable. On the one hand, the disease may undergo spontaneous cure by sphacelus and elimination of the invaginated intestine; and, on the other, the surgeon may find after opening the abdomen that the invagination can not be reduced on account of inflammatory adhesions. For these two reasons, it may be asked if enterotomy is not preferable to laparotomy, at all events where the symptoms have lasted for some time.

The causes of chronic obstruction are: 1. Compression (tumors, solid or fluid). 2. Chronic invagination. 3. Cancerous, fibrous, and syphilitic contractions. 4. Foreign bodies, seeds of fruits, fæcal matters, biliary calculi, etc.; or pediculated and movable tumors, such as polypi. 5. Abnormal adhesions of the intestine. As to compression by tumors, a special indication exists. If fluid, they may be tapped; if solid, the abdomen may be opened for their removal. In chronic invagination the same objections stand against laparotomy as in acute, and each surgeon must decide for himself which operation promises the better result. If the diagnosis of occlusion by abnormal adhesions were less obscure, laparotomy would allow the destruction of the adhesions. For obstructions due to foreign bodies or polypi, laparotomy offers no relief, unless it be combined with enterotomy to remove the body from the intestine in cases where the objective symptoms leave no doubt as to the exact nature and seat of the obstruction. In strictures laparotomy is absolutely powerless, unless with the idea of excising the contracted portion, which the author does not favor.

"In review, then, if laparotomy is sometimes indicated in chronic intestinal obstruction, the indications are so vague and undetermined as often to stay the hand of the surgeon, and excuse a certain timidity on his part. On the other hand, colotomy may render real service, it may be as a palliative operation in most cases, or as a curative measure in certain cases of invagination or foreign bodies." The remainder of the article is devoted to the consideration of the manual procedure of the two operations.

For the sake of facility of reference, we transcribe the bibliography attached to the article:

Charpentier.—De l'intervention chirurgicale dans les occlusions intestinales. "Thèse de Paris," 1870.

Larguier des Bancels.—Essai sur le diagnostic et le traitement chirurgicale des étranglements internes. "Thèse de Paris," 1870.

Delaporte.—De la gastrotomie dans les étranglements internes. "Thèse de Paris," 1872.

Doliger.—De l'intervention chirurgicale dans les occlusions intestinales. "Thèse de Paris," 1872.

Mason, Erskine.—On Lumbar Colotomy. "Amer. Jour. Med. Sci.," October, 1872.

Hutchinson.—On Gastrotomy in Intestinal Invagination. "Med.-Chir. Transactions," vol. lvii., p. 31, 1874.

Ashhurst.—On Intestinal Obstruction. "Brit. Med. Jour.," August, 1878. On Laparotomy in Intestinal Occlusion. "Amer. Jour. Med. Sci.," 1874, and "Arch. Gén de Méd.," 1875.

Boinet.—De la gastrotomie dans les lesions de l'estomac et de l'intestin. "Gaz. Méd.," 1874.

Heath.—Lectures on Colotomy. "Brit. Med. Jour.," December, 1877.

Bryant.—On the Surgical Treatment of Intestinal Obstruction. "Lancet," May and June, 1878.

Bellou.—Des symptômes de l'étranglement interne dans leurs rapports avec le siége de la lésion. "Thèse de Paris," 1878.

Bulteau.—De l'occlusion intestinal au point de vue du diagnostic et du traitement. "Thèse de Paris," 1878.

We would add also Dr. Sands's article in the "N. Y. Med. Jour.," June, 1877, and the various contributions to this subject which are scattered through the numbers of the "Brit. Med. Jour." for 1879.

GENITO-URINARY ORGANS.

1. BIGELOW, H. J.—Litholapaxy. "Medical Record," xvi., 1879, p. 306.
2. HEATH, C.—On the Diagnosis and Treatment of Ruptured Bladder. Abstract, "Proc. Roy. Med. and Chir. Soc.," London (1878–'79), 1879, viii., p. 376.

3. Monod, C., and Terrillon, O.—Essai sur le lymphadénome du testicule. "Arch. Gén. de Méd.," 1879, N. S., cxliv., p. 325.
4. Notta.—De la restauration du canal de l'urèthre détruit dans sa portion périnéale à la suite d'infiltrations urineuses. "Bull. et Mém. de la Soc. de Chir. de Paris," 1879, v., 583.
5. Picard, H.—Spermatorrhée; prostate tuberculeuse; atrésie du méat; débridement; bride au niveau du bulbe, section; tétanos; mort. "France Méd.," 1879, xxvi., p. 555.
6. Thompson, Sir H.—Report of Lithotrity at a Single Sitting; a Series of Cases. "British Medical Journal," August 2, 1879, p. 161.
7. Parker, F. L.—A Compilation of One Hundred and Thirty-one Cases of Stone in the Bladder, in South Carolina, with Operations. "Transactions of the South Carolina Medical Association," Charleston, 1879, xxix., p. 37.
8. Weir, R. F.—A Lecture on the Use of the Catheter in the Treatment of Hypertrophied Prostate. "Hospital Gazette," 1879, vi., p. 481.
9. Neupauer, J.—Beitrag zu der Lehre von der Harnsteinbildung in der Blase bei Kindern. "Centr.-Ztg. f. Kinderh.," 1878–'79, ii., p. 371.
10. Thompson, Sir H.—Lecture on the Diagnosis of Surgical Diseases of the Urinary Organs, especially in Connection with the Use of the "Nietze-Leitner" Endoscope. "Lancet," December 6, 1879, p. 823.
11. Moriarty, M. D.—Calculus Vesicæ in an Hermaphrodite; Lithotomy; Recovery. "British Medical Journal," December 13, 1879, p. 936.
12. Weir, R. F.—On Litholapaxy. "American Journal of Medical Sciences," January, 1880, p. 130.

6. A brief statement of the results of thirteen operations by the author after the method of Bigelow. In all cases he used his own improved aspirator, described in the "Lancet," February 1, 1879. The time required for the operation varied from seven to twenty-five minutes, averaging eleven. The amount of *débris* removed in each case varied from 94 to 329 grains. A subsequent operation for remaining fragments was necessary in four cases. He fully endorses the operation, but suggests that "when the great bulk of a calculus of considerable size has been removed, say in fifteen or twenty-five minutes, or thereabout, and it is quite obvious that a small piece or two only remain, I would advise that, if another effort or two to remove these last be unsuccessful, it is better not to repeat fruitless manipulations, but to give over the search to a future attempt. As far as my brief experience above given enables me to judge, it is wise, I think, to leave, as I did in three or four cases, a fragment or two, which seemed unwilling to be caught, until a day or two later, when they may be found in a tranquil bladder without difficulty, and meantime had clearly done no harm."

10. The credit of originating the idea of lighting up the bladder by passing into it a white-hot platinum wire is accorded to Dr. Nietze, now of Vienna, and its realization to Leitner, the surgical-instrument maker of that city—hence the name Nietze-Leitner endoscope. After describing the instrument, which consists of a platinum wire heated by electricity and surrounded by a current of water to prevent burning the body, Thompson thus expresses himself with regard to its practical utility: "Now, it is with great deference to the opinion formed by high authorities in Vienna, who are very sanguine as to the value of this instrument for the purpose of diagnosis, that I venture to express in cautious terms my own views as to its use. First, I do not regard it as likely to help us in cases of difficult stricture or retention of urine, nor do I conceive that it can be required to explore a bladder for any remaining fragments after the operation of lithotrity. I think all that is necessary to be done in such circumstances can be as well done by the methods at present commonly employed,

and that the use of the endoscope for such would generally involve additional and unnecessary interference. At the same time I do not say that such a case may not occasionally be met with, in which the instrument might render some service. On the other hand, there are some morbid conditions the existence of which we sometimes suspect, but can not positively affirm to exist, whose presence may now be ascertained through the agency of the new endoscope. I refer to the identification of sacculated stone as the cause of persisting and unrelieved symptoms; to the detection of pedunculated growths and of villous disease of the bladder, removable by operation; and, lastly, to the investigation of the nature of foreign bodies, other than calculi, which have become lodged there. I have lately seen a fatal case of vesical growth which might have been easily removed by operation; and in such a case, as well as in the rare contingency of a foreign body, the new endoscope may possibly render essential service. A precise knowledge of the nature, size, and position of a foreign body might enable us to devise a safe and certain means of removing it, in place of a tentative, uncertain, and hazardous proceeding. All these cases, however, are more or less rare; nevertheless it is our duty to be provided with every resource, whatever it may be, which enables us to deal more effectively then heretofore with conditions on the management of which grave issues depend."

[In the "Medical Times and Gazette," August 18, 1877, will be found a description of an instrument very similar to this one, invented by Dr. Justus Schramm, of Dresden, prefaced by this statement: "Attempts at lighting up the abdominal cavity for the purpose of diagnosis date from 1860. Milliot, in 1867, made an instrument, but only used it on animals and dead bodies. His experiments led Lazarewitch to apply it to gynæcology. He, however, failed to get light without at the same time getting heat, and so burning the patient."—REPORTER.]

12. Dr. Weir gives the following short history of rapid lithotrity, which is fatal to Dr. Bigelow's claim for originality: "Dr. Bigelow, however, is somewhat in error in stating that the comparative harmlessness of long sittings was unsuspected until the publication of his paper; for, not only had Amussat resorted to the immediate removal of stone from the bladder by the use of instruments so large as to compel the division of the meatus urinarius, but also Leroy d'Etiolles accomplished the same thing in the very same way that Thompson now does, i. e., by the use of multiple lithotrites; and, more pertinent still, so did Heurteloup, who in 1846 published an account of sixty-nine cases in which vesical calculi were removed at a single sitting, with but three deaths—two of which were due to coincident disease of the kidney, and one to cerebral apoplexy. The last-named surgeon said of his operation, with justifiable complacency, that, 'whatever might be the fatigue (ether then not being known) which some of his patients had experienced, he had never found that it was regretted'; and also, speaking later, almost prophetically, that 'the reduction to powder of vesical calculi being capable of being done in a short time, lithotrity will find in ether and chloroform, and especially in chloroform, an aid so that but few cases will be beyond the reach of this operation'; and further, still quoting him, that 'those who had been completely freed at once (from stone) have sometimes presented slight rigors or irritation, and even had the bladder attacked with catarrhal inflammation; but this lasted but a short time, for *it was not kept up by fragments, since the latter had been entirely removed.*' This is the same reason that Bigelow gives in 1878." The efficient means of evacuation of the fragments is, however, stated to be the incontestably and essentially novel point in Bigelow's operation. The article gives the notes of twelve additional cases of the operation, which, added to the sixty-five already

published, make a total of seventy-seven. Of these twelve, three terminated unfortunately—one, four weeks after the operation, from renal abscess, "the bladder being perfectly sound and free from calculus"; another, from uræmia, one week after operation, the bladder showing intense cystitis and a loss of substance as large as a ten-cent piece at the *bas fond*, extending through the muscular and mucous coats, with distinct pelvic peritonitis advancing upward into the abdomen; and another, twenty-nine hours after operation, from peritonitis and collapse, "autopsy revealing the bladder free from calculus matter, save that in one or two small hernial pouches formed on the left side was found a small stone of the size of a pea. On the posterior wall and to the left side was seen a linear laceration about three quarters of an inch in length, and involving the mucous membrane only. A little nearer the median line was an abrasion of the size of a two-cent piece. On the floor were seen several minute lacerations and spots of ecchymoses. The walls of the bladder, the subperitoneal tissue, and the peritonæum, over the sites of the lacerations of the mucous membrane, showed evidences of inflammation; and in the peritoneal cavity were six ounces of sero-sanguineous fluid."

In the light of such *post-mortem* appearances the author's closing words of caution are very pertinent: "Although the bladder tolerates much handling, so long as all offending substances are finally removed, yet it must be constantly borne in mind that the dangers of mechanical violence to this viscus in litholapaxy with an instrument, no matter how perfect, is some ten or fifteen times greater than in ordinary lithotrity. . . . It must also be continually remembered how slight a lesion of the bladder or urethra may seriously influence a kidney whose condition can not previously be determined. Litholapaxy strikes a spectator who witnesses it for the first time as a rude operation; most of this is only the association of ideas connected with the use of large instruments, and the blood from an incised meatus; but there is some ground for this idea when the blood-tinged water, even clots, are seen in the aspirator, when repeated *thuds*, indicative of the occlusion of the tube-opening, are met with, and when evacuating tubes halt on their onward progress to the bladder, from false passages just created or from want of due anatomical consideration. . . . The injunction should be loudly raised that none but those who have had experience in lithotrity, or those who have familiarized themselves on the cadaver beforehand with all the required instrumental manipulations, should undertake the operation of litholapaxy."

Miscellany.

CHANGES IN MEDICAL JOURNALS, ETC.—With the number for January 3, 1880, "The Lancet" is enlarged to forty pages of reading matter and forty of advertisements. Its edges are cut, but it is not yet stitched. ═══ "The Hospital Gazette" has become "The Medical Gazette," and appears with large, three-columned pages. ═══ "The Boston Medical and Surgical Journal" resumes the quarto form. This old favorite is now to our mind the handsomest of American medical weeklies. ═══ "Leonard's Illustrated Medical Journal" begins a new series. ═══ "The Alienist and Neurologist" is the title of a new quarterly journal of psychiatry and neurology, edited by C. H. Hughes, M. D., and published in St. Louis.

════ Another new quarterly is called "Walsh's Retrospect: a Quarterly Compendium of American Medicine and Surgery." It is edited by Ralph Walsh, M. D., and Thomas E. McArdle, A. M., M. D., and published in Washington by W. H. and O. H. Morrison. ════ A new monthly journal, "The Practitioner," is edited by H. L. Byrd, A. M., M. D., and B. M. Wilkerson, D. D. S., M. D. It is published in Baltimore, and can easily be distinguished from its London namesake. ════ The "Galveston Medical Journal," edited by Greensville Dowell, M. D., is a journal which suspended publication in 1872, and now again makes its appearance. ════ "The Kansas Medical Index" is the title of a new monthly journal published at Fort Scott, Kansas, and edited by F. F. Dickman, M. D. We beg to reciprocate the kind wishes that Dr. Dickman expresses for us in his first number.

GYNÆCOLOGY IN SPAIN.—In the "Revista de Medicina y Cirugía Prácticas" for December 7, 1879, published at Madrid, Dr. D. Angel Pulido y Fernandez gives a highly appreciative review of Professor T. Gaillard Thomas's classical work on the diseases of women, as translated into Spanish by Dr. A. B. de Luna (with the title of "Tratado Práctico de las Enfermedades de las Mujeres"), and published by Messrs. D. Appleton & Co., New York. The reviewer warmly welcomes this addition to Spanish gynæcological literature, and sketches the comparatively recent participation of Spain in what may be called the modern revival of gynæcology. It is not many years since the only book on diseases of women of any considerable value, in Spanish, was the translation of Dr. West's lectures. Two important works have recently been produced in Spain—Dr. Cayetano Del Toro's "Programa de Obstetricia y Ginecología," and Dr. Antonio Gomez Torres's "Tratado Clínico de Enfermedades de Mujeres"; also, translations of Sir James Simpson's works and of Barnes's treatise. The use of Sims's speculum seems to be generally restricted to operations, but we infer from the reviewer's words that Dr. Thomas's work will tend to bring it into more general use. The writer calls attention to the excellence of the translation, and to the superior style in which the volume is issued.

THE LATE DR. FREEMAN J. BUMSTEAD, OF NEW YORK.—At a meeting of the New York Medical and Surgical Society, held January 10, 1880, the following resolutions in relation to the decease of Dr. Freeman J. Bumstead were submitted by a committee composed of Drs. Abram Du Bois and Fessenden N. Otis, and were entered upon the minutes of the Society:

"*Be it resolved*, That this Society has learned with profound sorrow of the loss, through death, of one of its most valued members, the late Dr. Freeman J. Bumstead;

"*Resolved*, That the present occasion is a most fitting one on which to express our appreciation of the honorable character and high professional attainments of our late associate, and our grief at his untimely death;

"*Resolved*, That in his industry, his untiring energy, his methodical devotion to the interests of medical science, and in his most valuable and extensive contributions to medical literature, we recognize a life worthy of all honor, and of being held in perpetual remembrance;

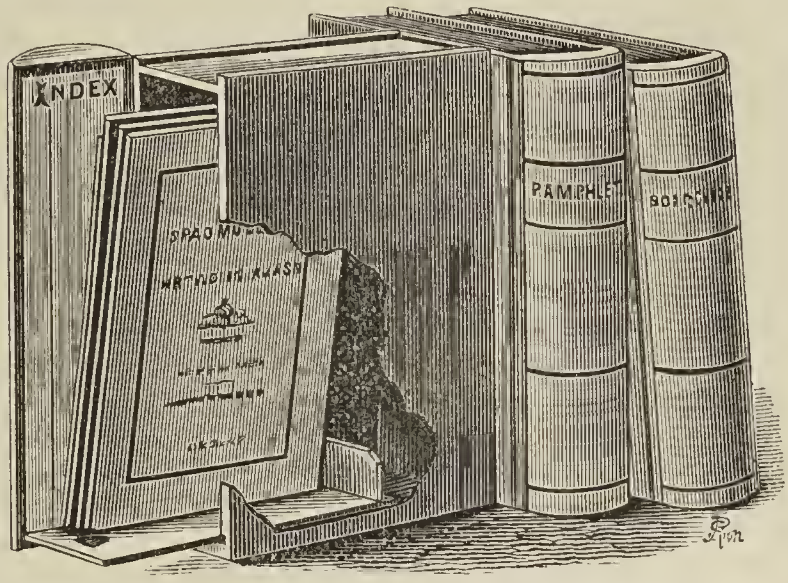
"*Resolved*, That, while thus expressing our high estimation of his professional work and life, we do not fail to appreciate the rare talents and accomplishments of our late professional brother in other fields of scholarly pursuit, and that these, joined to a uniform unobtrusiveness of manner, a genial and friendly nature, had endeared him to us, both as a companion and as a friend;

"*And be it further resolved*, That these expressions of our estimation of the life and character of our late beloved associate, and of our sorrow for his loss, be transmitted to his family, and also be forwarded to the leading medical journals for publication."

W. W. Jones, *President.*

A. B. Ball, *Secretary.*

A New Pamphlet-Box.—Mr. T. L. Clacher, the medical bookseller, of No. 107 East Twenty-eighth Street, has devised a very simple and convenient box for holding pamphlets, journals, etc. Like most pamphlet-boxes, its general appearance is that of a volume. The back closes with a spring. If one wishes to select a particular pamphlet from several contained in one of these boxes, the back is pulled open, and a false bottom, on which the pamphlets stand, is drawn forward. This brings all the pamphlets within easy reach, and at the same time the false bottom keeps the back from closing, thus relieving the hand from holding it open.



Army Intelligence.—*Official List of Changes of Stations and Duties of Officers of the Medical Department of the United States Army, from December 14, 1879, to January 13, 1880.*—Vollum, E. P., Major and Surgeon.—Relieved from duty in connection with inspection of veterinary supplies, and to resume his station at Jefferson Barracks, Missouri. S. O. 291, A. G. O., December 29, 1879. ═══ Heger, A., Major and Surgeon.—To proceed, on or before February 1, 1880, to San Antonio, Texas, and report in person to the Commanding General, Department of Texas, for assignment to duty. S. O. 3, C. S., A. G. O. ═══ Clements, B. A., Major and Surgeon.—Having relinquished his leave of absence, assigned to duty at Willet's Point, New York, relieving Surgeon Anthony Heger. S. O. 3, A. G. O., January 6, 1880. ═══ Forwood, William H., Major and Surgeon.—Assigned to duty as Post Surgeon at Fort Omaha, Nebraska. S. O. 121, Department of the Platte, December 29, 1879. ═══ Cleary, P. J. A., Captain and Assistant Surgeon.—Assigned to duty at Plattsburg Barracks, New York. S. O. 225, Department of the East, December 18, 1879. ═══ Bartholf, John H., Captain and Assistant Surgeon.—Granted leave of absence for six months. S. O. 290, A. G. O., December 24, 1879. ═══ White, R. H., Captain and Assistant Surgeon.—Relieved from duty in Department of Texas, to proceed to New York City and report by letter, upon arrival, to the Surgeon General. S. O. 293, A. G. O., December 29, 1879. ═══ Byrne, Charles B., Captain and Assistant Surgeon.—Granted leave of absence for two months, with permission to apply for an extension of four months. S. O. 287, A. G. O., December 20, 1879. ═══ Taylor, B. D., First Lieutenant and Assistant Surgeon.—Assigned to temporary duty at Governor's Island, New York Harbor. S. O. 7, Department of the East, January 12, 1880. ═══ Hall, William R., First Lieutenant and Assistant Surgeon.—Relieved from duty in Department of the Columbia, and, upon expiration of his present leave of absence, to proceed to New York City, reporting his arrival, by letter, to the Surgeon General. S. O. 293, A. G. O., December 29, 1879. ═══ Appel, D. M., First Lieutenant and Assistant Surgeon.—Relieved from duty in Department of the Missouri, and, upon expiration of his present leave of absence, to proceed to New York City, and report by letter, upon arrival, to the Surgeon General. S. O. 293, C. S., A. G. O.

United States Marine-Hospital Service.—*Official List of Changes of Stations and Duties of Medical Officers of the United States Marine-Hospital Service, October 1, 1879, to December 31, 1879.*—Bailhache, P. H., Surgeon.—Relieved from duty, port of New York, and ordered to Philadelphia, temporarily. Thence to resume his duties as member of the National Board of Health. October 25, 1879. ═══ Hutton, W. H. H., Surgeon.—Relieved from duty, port of New Orleans, and ordered to Detroit. November 1, 1879. ═══ Fessenden, C. S. D., Surgeon.—Relieved from duty, port of Portland, Maine, and ordered to New York. October 25, 1879. ═══ Doering, E. J., Surgeon.—Relieved from duty, port of Philadelphia, and ordered to Portland, Maine. October 25, 1879. ═══ Austin, H. W., Assistant Surgeon.—Relieved from duty, port of Key West, and ordered to New Orleans. November 1, 1879. ═══ Stoner, G. W., Assistant Surgeon.—Relieved from duty, port of Buffalo, and ordered to Philadelphia. October 25, 1879. ═══ Fisher, J. C., Assistant Surgeon.—Detailed as chairman of board for the physical examination of candidates for promotion in the Revenue Marine Service. November 20, 1879. Granted leave of absence for nine days from December 19, 1879. December 17, 1879. ═══ Godfrey, John, Assistant Surgeon.—Ordered to proceed to New Orleans, for temporary duty during illness of Surgeon Austin. December 29, 1879. ═══ Goldsborough, C. B., Assistant Surgeon.—Detailed as recorder of board for the physical examination of candidates for promotion in the Revenue Marine Service. November 20, 1879. ═══ White, R., Jr., Assistant Surgeon.—Ordered to Buffalo, October 24, 1879. Orders to Buffalo revoked; ordered to report to Surgeon Fessenden, New York, for duty. November 12, 1879. ═══ Irwin, Fairfax, Assistant Surgeon.—Upon expiration of leave of absence, to proceed to Charleston, South Carolina. October 31, 1879. ═══ Glazier, W. C. W., Assistant Surgeon.—Relieved from duty, port of Charleston, South Carolina, and ordered to Key West, Florida. October 31, 1879. ═══ Cooke, H. P., Assistant Surgeon.—Relieved from duty, port of Pensacola, Florida, and ordered to Buffalo, New York. December 1, 1879. ═══ O'Connor, F. J., Assistant Surgeon.—Ordered to Philadelphia for temporary duty. November 10, 1879. Ordered to Buffalo, New York, for temporary duty. November 12, 1879. When relieved by Assistant Surgeon Cooke, to rejoin his proper station. December 9, 1879. ═══ Porter, F. D., Assistant Surgeon.—Assigned to temporary charge at Detroit Marine Hospital. October 25, 1879. When relieved by Surgeon Hutton, to proceed to Chicago, and report for duty to Surgeon Miller. December 17, 1879. ═══ *Promotions.*—Austin, H. W., Surgeon.—Promoted to be Surgeon from November 1, 1879. November 3, 1879. ═══ Gassaway, J. M., Passed Assistant Surgeon.—Promoted to be Passed Assistant Surgeon. December 12, 1879. ═══ Smith, Henry, Passed Assistant Surgeon.—Promoted to be Passed Assistant Surgeon. December 12, 1879. ═══ Stoner, G. W., Passed Assistant Surgeon.—Promoted to be Passed Assistant Surgeon. December 12, 1879. ═══ *Resignations.*—Ellinwood, C. N., Surgeon.—Resignation accepted, to take effect October 2, 1879. October 2, 1879. ═══ Brown, J. A., Surgeon.—Resignation accepted, to take effect November 1, 1879. November 7, 1879. ═══ Dana, C. L., Assistant Surgeon.—Resignation accepted, to take effect November 15, 1879. November 11, 1879.

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Original Communications.

TRACHEOTOMY IN MEMBRANOUS LARYNGITIS.*

By WILLIAM C. WALSER, M. D.,
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I HAVE been induced to offer the following contribution to the literature of tracheotomy in membranous laryngitis, partly by the somewhat extensive experience which has lately fallen to my lot, partly by the diversity of opinion which still exists in the profession as to the advisability of an early operation or of deferring operative measures to the last minute.

In regard to the statistics of the operation, Dr. Jacobi, in the "American Journal of Obstetrics," for May, 1868, gives the result of those operated upon by himself and the late Drs. Krackowizer and Voss as one recovery in every four and a quarter cases, and Güterbach, in his statistics of the operation in one hundred cases, gives a mortality of 66 per cent., and even these, if I remember rightly, are above the average among my fellow practitioners. Trousseau's well-known fondness for and success in tracheotomy gave him only $21\frac{1}{25}$ per cent. of recoveries, while the mortality in the hospitals and in the general practice of Parisian surgeons gave only a little more than 14 per cent. The best statistics I have been able to get at are those of late years, in which Bosch had 33⅓ per cent., Reiffer, 35⅓ per cent., Wilms, 32⅓ per cent., Unde, 28½ per cent., and George Buchanan, of Glasgow, about 37 per cent. of recoveries. My own mortality, I am very sorry to say, has been greatly augmented by two unfortunate cases that I have had within the last few weeks, but still my percentage of recoveries is greater even than those quoted above, being no less than four successes out of ten cases.

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* Read before the Richmond County Medical Society.

I can not coincide with many of my fellow practitioners as to the necessity or advisability of an early operation. I should, under all circumstances, decline to operate unless there were very decided evidences of deficient oxygenation of the blood, shown by lividity of the lips and of the tips of the fingers. What I consider, however, a more striking indication for operating is, a retraction of the epigastrium and intercostal spaces in inspiration, this being due to the *besoin de respirer* causing all the accessory muscles of inspiration to be brought into violent and spasmodic action, while the atmospheric pressure outside has to fill up the space created by this enlargement of the capacity of the chest—not enough air entering the glottis to counteract it. If the obstruction to the entrance of air into the lungs continues too long, the ribs no longer move on inspiration; there is a mechanical impediment to their doing so from the pulmonary tissue having now become œdematous from effusion into its parenchyma. This latter condition does not (according to Smith and, I think, Bartels) contraindicate operative procedures, but on the contrary warns us to be quick, if we would save our patient. To illustrate both the foregoing propositions, as to early or late operation, by many cases would occupy too much space. I shall, therefore, simply take two of the most striking cases illustrative of the opposite conditions.

A child in a poor Irish family was taken ill, but I was not sent for until there was some difficulty in breathing. The child's throat, posterior nares, and hard palate were then one stinking mass; there was already some lividity of the face and finger-nails, and on auscultation there was very little respiratory murmur to be heard over the chest. As the family evidently could not take care of the child after the operation, I determined to defer it, in the mean time giving her a dose of turpeth mineral, and sustaining her strength with beef-tea, milk, and stimulants. Two of my friends saw her with me, and both were of opinion that tracheotomy would shortly have to be performed. She remained in that condition for three days, but eventually recovered without operation.

Last spring I had a case illustrative of the opposite condition of affairs.

I was called out at three o'clock in the morning, and was asked to bring my instruments along. When I reached the house, I found a child in a semi-unconscious condition, breathing heavily, the lips bluish, the chest nearly stationary, the face ashy pale, and a cold perspiration on her forehead. I sent her father for skilled assistance, but before he could go I had to operate, as she was evidently gasping her last. As I cut through the skin, she apparently died, her limbs falling lax, and she offering no resistance to the knife, so that the medical gentleman who assisted me said, "No use, doctor, she is dead!" I opened the trachea at once, however, and began artificial respiration, and was rewarded by seeing her take a full inspiration, but it was full fifteen minutes before she came quite to herself.

The foregoing cases, I think, fully represent the two conditions. The first would have been operated on by those who believe in early operations, and the latter would have been left to die by those who consider fixation of the chest-walls as contraindicating operative interference. As to the contraindications to the operation, I should consider the most serious one to be the age of the patient. I would not like to operate upon a child less than two years old, unless it were remarkably strong and sturdy. Max Müller saved none of those he operated upon under a year, and only two out of five under two years, while I lost my only case under a year. The next most urgent contraindication is a lack of strength in the child, for, if he be weakly, and if the disease have either made its appearance first in the larynx or very soon extended there, not only has he to withstand the effects of the operation, but the disease has still to run its course, as it were. The longer the diphtheritic trouble has existed, if there be any, the more nearly has the blood-poisoning worn itself out, and the better are the chances of success, as the exudation about the tracheal wound will be neither very extensive nor severe, and there will consequently be less likelihood of the constitutional trouble becoming aggravated. Previous good health, and, above all, a good stomach, are most important factors in determining the result of a case. Notwithstanding that all the text-books advise us not to operate after any of the asthenic fevers, my first success was in a case of diphtheritic laryngitis, occurring just as the patient was getting well of measles. We should not let bronchitis, broncho-pneumonia, or, above all, nephritis (or, more exactly, albuminuria), deter us from the operation, for, although most serious conditions all of them, in very many cases we shall find the nephritis or broncho-pneumonia get well, as if by magic, after the operation. Tracheotomy is preferable to laryngo-tracheotomy or laryngotomy, on account of the danger of any ulcerative process occurring in the larynx and doing irreparable damage, especially if much sloughing take place, as occurred in one of my cases, where a large amount of tissue became gangrenous. The trachea is also less irritable, being supplied with fewer sensitive fibrils than the larynx, and consequently resents the introduction of a foreign body less than the latter does. The tube lies better after tracheotomy, and there is less likelihood of any ulceration occurring in the posterior wall of the trachea from the pressure of the cannula. If the thyroid body should lie in the course of the incision, I would push it downward if possible, but, if it is so large as to prevent a satisfactory operation, I would pull it upward and open the trachea below it. On no account should it be cut through, as very considerable hæmorrhage is apt to arise, and every drop of blood is of the utmost moment in the subsequent progress of the case; moreover, a very large gateway is opened for the introduction of septic matter into the blood through the absorbents of the gland, which are very numerous and active in young children. There is very little danger of hæmorrhage from the superficial veins, more particularly the median, the jugular, and the transverse thyroids, if a careful dissection be made. In regard to the time of life at which the operation is most successful, judging from my own experience, I should say, from the sixth to the eighth year; in fact, *cæteris paribus*, the older the child the better the chances of success; but, if I had to choose between a younger child with a good stomach and an older one with a poor stomach, I should select the younger.

The operation having been successfully performed, what treatment is to be pursued? In one of the spring numbers of the "British Medical Journal" there were two successful cases of tracheotomy reported, the fortunate issue of which was said to be due to the treatment adopted, and, as this treatment gave very much less trouble to both doctor and nurse, and apparently caused less discomfort to the little patients, I determined to pursue it in my next case. The treatment differed from the accepted one in that there were no vapors of lime and no hot air used, but, on the contrary, plenty of fresh, dry, and cool air (from 68° to 75° Fahr.) allowed to enter the sick-room. Deeply do I rue my experience of this treatment, however, for I think I lost by it as promising a case as I ever had, as I know the congestion of the lungs was not due to any extension of the trouble downward and occlusion of the bronchi from newly-formed plastic deposits, but apparently to the first stage of a double pneumonia, there being a profusion of fine *râles* suddenly developed over the bases of both lungs, which gradually rose higher and higher until they completely filled the chest.

I choose a medium-sized room, from which I remove everything except a bed with a good mattress, two chairs, and a table, and I arrange some heating apparatus so as to be able to heat the room to any temperature I like, and at the same time such a one as causes no dust to come into the sick-room from it. In the middle of the room I place two large tubs, in which I slake my lime, far enough away from the bed to prevent any of the small particles of lime-dust reaching the patient. This dust question is a very serious one, so that, after slaking the lime three or four times a day, I have fire-bricks heated, and generate steam and the vapor of lime by putting them into the tubs of lime and water. This does away with much of the dust, and at the same time prevents the inordinate use of lime, which, in the long run, amounts to considerable, as I used in one of my cases twenty-six barrels of lime. If I find that there are membranous deposits forming, I keep the room as full of steam and vapor of lime-water as I can, so as to hasten their softening and expulsion. The temperature of the room I never allow to fall below 78°, and prefer to keep it about 85°, at the same time taking care that there is a constant supply of fresh, pure air from the outside admitted into the room. As to diet, I insist upon stated amounts at stated times, and give brandy and the like very freely, if there is the slightest weakening of the pulse. During the whole course of treatment, I give nothing but animal broths and milk, with stimulants in large quantities. As far as medication goes, I treat the patients in the same way after the operation as I do before it, with the exception that I am much more careful about their stomach, and most frequently administer the quinine by the rectum. In fact, I have very little fear of any complications that may arise, if I can only get my patients to take and retain the nourishment, stimulants, and medicine I give them.

During the first twenty-four hours after the operation we must be on the lookout for, first, œdema of the lungs, which, having commenced before the operation by the smaller capillary network of blood-vessels being obstructed, goes on after the cause of the obstruction has been removed, and rapidly ends fatally; secondly, apnœa, from too late operation; thirdly, plugging of the cannula with a clot of blood, inspissated mucus, detached portions of membrane, etc., which an inexperienced nurse does not remove, or by a partially detached piece of membrane acting like a valve over the mouth of the cannula; fourthly, anæmia and exhaustion. A pulse of above 152 within twenty-four hours after the operation is set down by Uhm as absolutely fatal, and, if the respirations should become very difficult or very frequent (60), it is equally so; a good omen, on the contrary, is the approach of the pulse, temperature, and respiration to the normal.

After these dangers have passed over, we must look out for an extension to the bronchial tubes and the pulmonary alveoli in the form of bronchitis, membranous bronchitis, or broncho-pneumonia, and at the same time we should examine the urine carefully. The thermometer is now a most satisfactory guide, for, on a sudden rise of temperature, if we watch the chest and examine the urine, we shall almost invariably (invariably, so far as my experience goes) find either a broncho-pneumonia or a pneumonia, while the urine will contain from $\frac{1}{15}$ to $\frac{1}{6}$ its bulk of albumen, with hyaline, epithelial, or granular casts. Later on, we may have uræmic coma or convulsions, with or without paralyses. A most favorable sign is the cough becoming loose and the expectoration muco-purulent, with shreds of membrane. About the fourth or fifth day, some of the food will be found to enter the larynx and make its escape through the cannula. This condition is very apt to occur with a paralysis of the pharynx, or it may occur from ulceration of the epiglottis, or because the latter does not perform its function properly, or because an ulceration has extended from the trachea into the œsophagus. If this condition becomes extreme, it is a very bad omen, as it shows that the powers of the patient are succumbing to the disease. Paralysis of the pharynx is apt to occur about this time, according to my experience, and it shows itself by a regurgitation of the food through the nose. If the systemic poisoning has gone on to any extent, it is now that it will show itself in the general weakness of the patient, and this is the time to administer large doses of stimulants. Paralysis of the heart and irritability of the stomach are now to be dreaded more than the throat trouble. We should look after the pulse carefully, especially in regard to intermittence, as this latter symptom, in my experience, always portends cardiac mischief. We should also be watchful of the urine, for the albuminuria may not be merely secondary to venous congestion, but may be due to a true diphtheritic nephritis. If the sediment be examined under the microscope, either hyaline (not significant), blood, epithelial, or granular casts will be found.*

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* Dr. Browning, in a paper published in the "British Medical Journal" for July, 1872, on diphtheritic albuminuria, thinks it is due to a paresis of the nerves supplying the kidneys. I think, however, that a much more rational and comprehensive explanation is found in the increased amount of excretory matters plugging up the Malpighian tufts and straight tubules, and so causing a true parenchymatous nephritis, similar in character to that following scarlatina. The smaller the quantity of urine and the greater the proportion of albumen, the more serious is the condition of the patient. In all my cases there has been more or less albuminuria—more in the fatal cases, with a gradually increasing quantity until the end. It generally made its appearance at the same time with the pneumonia,

The tube should now be examined daily as to the feasibility of its removal. If, the general symptoms having abated, a finger being placed over the opening of the outer cannula, the inner one being removed, the patient can breathe through the slit which opens into the upper portion of the trachea and is continuous with the larynx (for ten minutes according to my experience, for two hours according to Max Müller), the cannula had better be removed, as it now only does harm by its continual friction against the mucous lining of the trachea. If the wound in the trachea looks sluggish, I have found the balsam of Peru a most excellent stimulant, and I generally apply it twice a day for some days before I remove the tube. The wound is now drawn together with adhesive plaster, and rapidly heals. The general treatment should be continued for some time, and a sharp lookout kept up for a recurrence of the albuminuria, or for any paralytic trouble, which may occur at any time within a month of the attack.

In the following cases, I would like to call attention to the first case, for which artificial respiration was kept up with such a successful result, and to the continuance of the excessively high temperatures in the second case, notwithstanding the treatment pursued.

M. R., a strong, healthy child of eight years, was taken ill on a Friday, with hoarseness and some difficulty in breathing, which continued to grow worse until I was sent for, early the next Tuesday morning, to perform tracheotomy, as it seemed evident that the child could not long survive. On depressing the tongue, the fauces were seen to be free from any membranous deposit, and looked perfectly natural, but, when the larynx was inspected, it was found to be covered with a dirty whitish mass. The conditions under which I operated in this case have already been spoken of under the head of contraindications for the operation. She was arranged comfortably in bed, a steam apparatus set going, and some light but nutritious food was given. The temperature, pulse, and respirations will be found in the subjoined diagrams, and will only be incidentally noticed in this history. Food in the form of milk and beef-tea was given at regular intervals of half an hour, and in small quantities, so as not to

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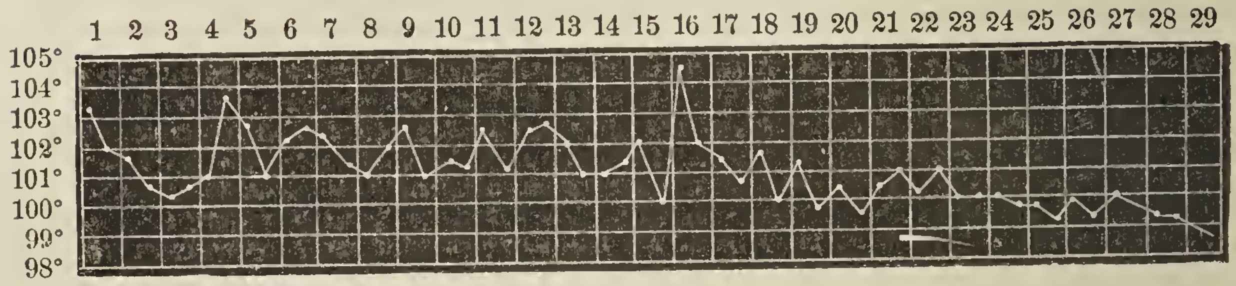
but, in those cases where no pulmonary complication supervened, it appeared in small quantity, and for a day or so only, within the third or fourth day after operating. Effusion into the cellular tissue and the serous cavities did not occur in any of my cases of albuminuria.

overload the stomach. Tincture of chloride of iron, chlorate of potassium, and sulphurous acid were given by the mouth, and antipyretic doses of quinine *per rectum.* Inhalations of oxygen gas were given whenever the entrance of air into the chest was limited. The amount of membranous deposit in the trachea and bronchi below the tube was so great that even after the operation the entrance of air into the lungs was anything but free. This obstruction culminated fifty-two hours after the operation; the respirations, both inspiration and expiration, becoming so difficult (the face being cyanosed, the nose pinched, etc.) that death appeared imminent. Suddenly she was unable to breathe, and, on the spur of the moment, I applied my mouth to the cannula, and blew down the tube and then aspirated. The effect of this way of performing artificial respiration being most satisfactory, I kept it up for over three quarters of an hour. I then became tired, and, seeing that a little exertion on the part of the patient would suffice to remove the obstruction, I inserted a few drops of lime-water into the opening of the tracheal tube, with the most extraordinary effect, as she then coughed violently, and expectorated a cast of the trachea and the bronchial tubes to the second division, and was immediately relieved. Membrane never formed again in large quantity, but the bronchitis extended on the right side, even into the smallest bronchi. This, together with a slight albuminuria, accounts for the rise of temperature on the following day. The albuminuria lasted but a couple of days at this time. It was not until the fifteenth day after the tracheotomy that the tube could be removed. On the day following there was a sudden rise of temperature, with increased frequency of the pulse and respiration, and a reappearance of the albuminuria, together with indications of a pneumonia at the base of the right lung. This accident was apparently due to changing the patient from one room into another, the first room having become damp and unpleasant from the continued slaking of lime. She eventually made a good recovery, but the external wound did not close entirely until the twenty-eighth day after the operation.

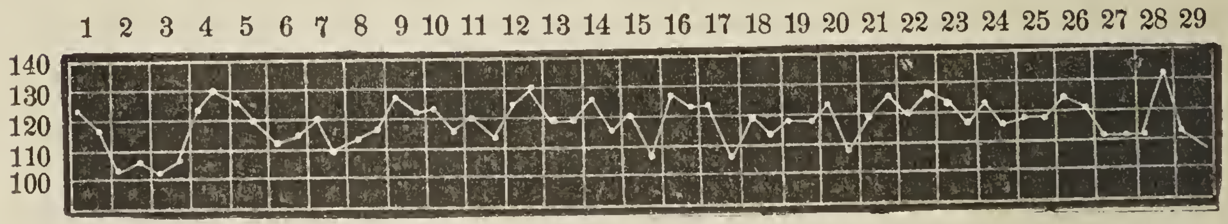
T. H., a delicate girl of seven years, had been ill two days, when the obstruction to respiration became so great that the parents were alarmed, and sent for me. I at once told them that the only hope lay in an operation, and to this they finally consented. The fluctuations in pulse and temperature will be seen from the subjoined diagrams. The treatment, both in regard to medication and to diet, was carried out as detailed in the foregoing case. The tube was found to be very dry on the fourth day after the operation, and the wound around the tube looked very angry and swollen. There had been but comparatively little discharge from the tube from the first, and on the fifth day the cough became very dry and frequent, and a pneumonia rapidly developed from the spine of the right scapula downward. On the morning of the seventh day she expectorated large quantities of thick masses, but coughed much less frequently. She appeared, however, very weak and exhausted, with a feeble pulse and labored breathing. Until then there had been but a trace of albumen in the urine, but it now averaged twenty per cent. On account of the excessively high fever she was sponged off with alcohol and water every hour, but with no apparent effect on the temperature, which continued, with very little variation, at about 104° F. until she died. She appeared to feel better, however, for a couple of days, and the pneumonia began to clear up. On the sixth day she complained of nausea and of pain in the stomach, which latter was relieved by a free evacuation. On the eighth day she became very restless and excited, complaining of headache, and passed but very little urine, and that was loaded with albumen. Paralysis of the fauces now set in, and the day before she died deglutition became absolutely impossible, as fluids came back from the mouth and through both the nose and the tracheotomy tube as soon as she attempted to swallow them. She grew more and more drowsy, the urine became more and more albuminous, and eighteen hours before death there was coma, with retention of urine, the pupils were very much contracted, the respirations were jerky, and the pulse was very feeble. The nurse said she had convulsions, confined to the right side, a few hours before death. Whether she had uræmic convulsions or not before death is immaterial, as there is no question as to the kidney trouble being the immediate cause of the fatal ending of the case.

The high temperature shows how excessive the poison was, and whether the increased action of the kidneys to get rid of this materies

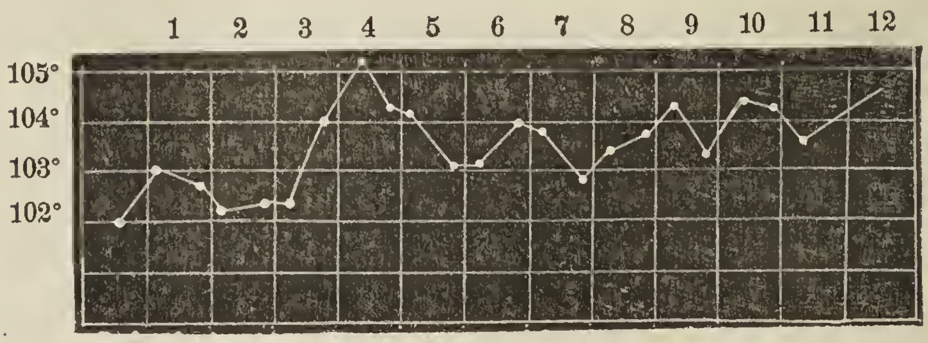
Case of M. R.—Temperature.



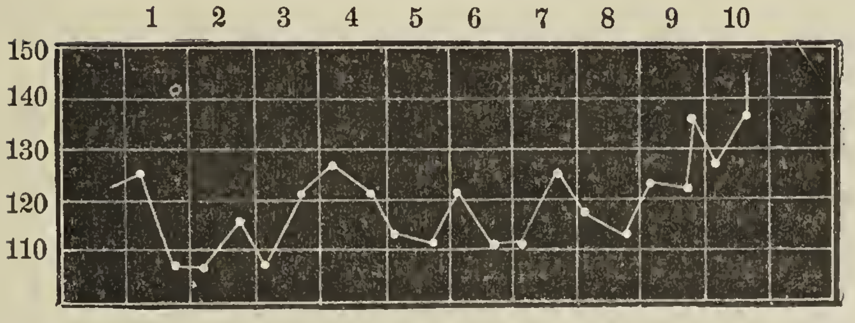
Case of M. R.—Pulse.



Case of T. H.—Temperature.



Case of T. H.—Pulse.



morbi was the cause of an acute diphtheritic nephritis, or whether it simply plugged up the Malpighian tufts and the straight tubules, and so produced uræmia, or whether it exemplified the theory of a paresis of the nervous trunks supplying the kidneys, it is impossible to say, as no post-mortem examination was allowed. Her pulse remained good until the last, never reaching 130 until the day she died.

CLINICAL NOTES ON NEURALGIA OF THE SCIATIC NERVE CAUSED BY SYPHILIS.

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It seems somewhat singular, considering how carefully the numerous symptoms and affections of syphilis have been described, that the various manifestations of the action of this virus upon the sciatic nerve have never really been carefully and properly studied, so that to-day we are scarcely more advanced in our knowledge than we were in the year 1859, when Gros and Lancereaux together and G. Lagneau alone wrote extended works on syphilis of the nervous system in competition for the Civrieux prize, which the Imperial Academy of Medicine of Paris awarded to the two first co-workers. As the knowledge of this affection is both important and interesting, I think it is well to briefly present the cases and views of those who have written on this subject before detailing the few instances which have come under my observation. Unfortunately there are on record, as instances of syphilis of the sciatic nerve, cases in which the history is either meager and insufficient or even in some instances open to grave doubt. Indeed, it may be said of some, as it may be said of the histories of many of the putative cases which are reported, that the only real reason why they are at all looked upon as syphilitic is that an appropriate treatment for that disease has brought about a cure. This point has long seemed to me of such importance, not only as to this but to many other affections, that it required especial attention, but I can here merely allude to it. The error lies chiefly in two directions: first, in a careless or not thorough diagnosis; second, in assuming, certainly very wrongly, that mercury and iodide of potassium, either singly or combined, are absolute specifics for syphilis alone, and have no marked influence on other pathological conditions and lesions. Returning, now, to our study of sciatic neuralgias caused by syphilis, we find that the first mention of this affection is by Baglivi, in 1707, who reports the case of a man whose syphilis is certainly not clearly made out, but who was cured by decoction of sarsaparilla and crude antimony with certain barks. The next writer was Plenck ("Doctrina de Morbis Venereis," Vienna, 1779), who, besides detailing the case of a syphilitic boy, aged six years, suffering with epilepsy, also gives two cases of men having venereal disease who suffered, the one severely the other mildly, with sciatic pain, which was cured by mercurials. In one of these cases, hemiplegia had preceded the sciatica. This writer called the affection ischias venerea.

We find no mention of the affection again until 1803, when Cirillo, an Italian syphilographer, in a work which in its day was of sufficient importance to be translated into both German and French, recognized the fact that general paralysis was caused by syphilis, and gave the history of a case. Further, he published three cases of sciatic syphilis, and says of one: "I have cured in three weeks, with baths and frictions with corrosive sublimate, a young soldier having an atrocious pain in the left thigh, which prevented his moving. This man also presented many other syphilitic lesions." His second case is as follows: A soldier had been for a long time afflicted with deep suppuration of the scrotum and with sciatica. The first trouble was cured, but the neuralgia persisted, and became day by day more unbearable, until he had used five frictions with the ointment of corrosive sublimate. In spite of the absence of full details of this man's syphilis, I am disposed to accept this case as really a genuine one, as the author shows in his book much familiarity with syphilis and acuteness in the recognition of its various symptoms. He used the corrosive sublimate ointment very largely, and speaks of frictions with it as being very efficacious in the treatment of syphilis. Cirillo's third case was that of a young soldier who had been infected with syphilis years before, and who had two nodes on the sternum and one on one of the right false ribs, and who also suffered from sciatica. Thirty frictions with Cirillo's ointment caused the entire disappearance of the nodes, and cured his sciatica.

We find no mention of the affection again, or at least no new cases, until the year 1844, when Courty reported the following case from Lallemand's clinic ("La Clinique de Montpellier," page 2): An African hunter, in September, 1843, had been affected for three years with a violent pain extending the whole length of the left sciatic nerve, and was then unable to mount his horse, and walked only with difficulty. Vesicatories, the moxa, morphine, acupuncture, and various other measures gave no relief. As he had had several attacks of venereal disease, he was placed upon antisyphilitic treatment, which immediately gave unequivocal relief. He took one hundred and fifty Sédillot's pills, and, when the report of his case was published, his condition was so much ameliorated that a perfect cure seemed probable.

The next author who published a case was Lacombe ("Union Médicale," December, 1850), but it is to be regretted that its history is wanting as to the evolution and course of the syphilis. It is as follows: A man thirty years of age, having had intercourse with a woman suffering with constitutional syphilis, experienced severe pain in his bladder. Every time he urinated, at the end of the act, a small quantity of very fetid pus escaped, which was attended with atrocious pain in the course of the urethra. Leeches, sitz-baths, cataplasms, and diuretic drinks afforded no relief. The patient was then further afflicted with left sciatica. Iodide of potassium, with sirup of sarsaparilla, continued for a long time, produced great relief. He then went to the baths of Cauterets, where in addition he drank the waters and applied them to the upper part of the nerve by the douche, and took baths. In a month he returned almost entirely cured. During his stay at the thermal cure, a tumor of the size of a hen's egg, hard and resistant, developed under the muscles of the thigh, and a month after the sciatic pain returned. The patient was sent back to Cauterets, and three weeks after he suffered no pain. Four years later he was free from it, but the tumor remained. It is idle to speculate upon the nature and even probable immediate effect of this tumor, as the man's syphilitic history is so very meager, being really summed up in the fact that he had cohabited with a syphilitic woman. The remarkable results of the iodide, followed by the thermal treatment, are worthy of remembrance, however, in an affection which often resists all remedies.

A few years after this, Piorry, in his "Mémoire sur les affections du rachis," (published in the "Moniteur des Hôpitaux," page 471), speaks as follows regarding the influence of syphilis upon the vertebræ in a case in which he had recourse with great advantage to the iodide of potassium and to the proto-iodide of mercury. There was a periostitis, or exostosis, of the left transverse process of the third lumbar vertebra. This tumor compressed the corresponding nerve, and caused pain in the sciatic nerve and paralysis of the limb. In a month, under the influence of a mercurial treatment, the process became reduced to its normal size, and the pain and paralysis disappeared.

Gérard, of Lyons ("Union Médicale"), reports the two following cases, quoted by Gros and Lancereaux: A man, seventy years old, had gonorrhœa at the age of twenty-five, and a chancre on the penis at the age of thirty. When fifty years old he became afflicted with sciatica, which resisted treatment for twenty years. At this time Gérard suspected an unrecognized syphilis of early days as the cause, for the reason that the pain was nocturnal in character. He therefore ordered forty-five grains of the iodide of potassium to be given in four days. On the second day there was amelioration, and in eight days the pains ceased. The objection already urged applies forcibly to this case, which unfortunately is a fair specimen of a class of cases cited by certain French writers as examples of syphilis of the nervous system. This fact shows how careful we should be in accepting ancient cases, even in works which have come to be standard, such as those of Gros and Lancereaux, Lagneau fils, Zambaco, and Yvaren. Case II. (Gérard).—Madame S., twenty-three years of age, was confined to bed by pains running down the posterior part of the left leg as far as the heel. Several methods of treatment had proved inefficacious, when G., having examined the patient, found unmistakably syphilitic lesions, such as copper-colored spots, nodes, etc. Iodide of potassium was given, and the pains ceased in fifteen days. The treatment being prolonged, all of the evidences of syphilis disappeared. Here, although we have a true history of syphilis, we are unfortunately not informed as to the age of the disease, though it is probable, from the number of lesions, that it had not existed much longer than a year. I now present my own cases:

Case I.—S. A., a commercial traveler, well built and healthy, aged twenty-four, came to me in February, 1869, having a small, pea-sized indurated nodule upon the inner surface of the prepuce. This lesion had begun four weeks previously as a small excoriation, which had gradually become hard, and had healed over. The inguinal ganglia were markedly enlarged. In two weeks the body was covered with a sparse roseola, and there were small crusts on the scalp. He suffered also very severely with pain in the left side, rendered worse on deep inspiration; indeed, the act of breathing was for more than a week labored and jerky. He was treated actively with mercurials, and tonic regimen was carefully followed. During the summer, while absent from New York, he suffered from pain in the right leg, which troubled him until his return in the fall of the year. In September his condition was as follows: All the ganglia accessible to examination were slightly enlarged, particularly those of the inguinal region, and there was a slight papular syphilide on the forearms and thighs. The general nutrition was fair, but his strength was not quite normal, and there was slight emaciation. The patient complained of headache, and pains in the course of the right anterior crural nerve and in the sciatic nerve of the same side. All of these symptoms came on gradually about four o'clock each day, and became very violent during the evening and night, so that the patient could not sleep until early morning. The headache was chiefly frontal, and consisted of a dull, boring pain, which was entirely absent during the day. The pain in the anterior crural nerve was of a severe character, and extended from the groin down to the knee, passing toward the inner side of the limb. This pain was sometimes accompanied by a pain of milder character on the right side of the scrotum. The sciatic pain began about the point of exit of the nerve from the pelvis, and ended at the knee. It was more severe than the crural pain, and was present in a mild, dull form during the whole day, causing some impediment to locomotion. It underwent exacerbations of much severity at night, and really constituted a formidable affection. At this time I questioned the patient closely as to the existence of any neurosis prior to the development of his syphilis, and failed to learn that he had suffered from any. He had never had malaria, rheumatism, gout, gonorrhœa, or testicular inflammation. The only indication of previous trouble in his right limb was that, as a boy, he had had a slight sprain of the knee. Etiologically, the only explanation of his neuroses was in the fact of his being syphilitic. Taking, then, the general condition of the patient into consideration, and the peculiar character of nocturnal exacerbation of his neuroses, I concluded them to be of syphilitic origin. He was ordered to use mercurial inunctions (of the strength at first of thirty, afterward of forty grains) twice daily, with nutritious food. While absent, he had consulted a physician in a small Western town, who made the diagnosis of malarial sciatica, and treated him actively with quinine and blisters. The result was failure, as his neuroses continued, and his nutrition became worse. During the first few days in which he used the mercurial, he did not experience very decided relief, though he certainly suffered less than before; but my notes say that on the sixth day he reported in the morning that he had slept the night before, having had very little pain, and having omitted his chloral and morphine solution, which was, however, of slight strength. He used the inunction treatment without interruption for thirty days, during which time he did not suffer from his pains, and his weight increased to the amount of ten pounds. He took for two weeks, with apparent benefit, ten grains of the iodide of potassium thrice daily, and at the end of that period he was ordered to use the inunction treatment four times weekly for a month. On the whole, this patient followed my directions as to treatment with care, and he never after presented any visible lesion of syphilis. In the summer of 1870 he had a relapse, though in a mild form, of the sciatic pain, which quickly ceased under mercurial treatment. He was under my care at intervals, for syphilis, for rather more than three years, during which time he went through interrupted courses of mercurial treatment, which, in my opinion, are the best and surest methods of curing syphilis, and which, if properly administered and followed, will positively cure in the vast majority of cases. He has now been married three years, is in every respect healthy, and is the father of two healthy children.

The interesting points in this case are: first, the evolution of two severe neuroses within the first year of syphilis—that is, in the secondary period; second, the fact that their syphilitic nature was wholly overlooked by a physician, who, regarding them as of malarial origin, gave quinine in heroic doses without the slightest effect; and, thirdly, the prompt and lasting relief which followed the administration of mercurials, while anodynes and local remedies were merely of palliative effect. Clinically, then, this case is an example of the development of sciatic neuralgia in the early secondary period of syphilis. It warrants the conclusion that, among the various neuroses of secondary syphilis, that of the sciatic nerve may be looked for even as early as within the first six months. Due to the general blood-state, probably originating in some minute change of the nervous centers or peripheral structures, it was a distinct evidence of the syphilitic diathesis in its early, active state. That the affection was not due to a profound lesion or severe pathological change is proved by the fact that it was so markedly ephemeral in its course, and that after its cessation no evidence of structural change could be made out either in perversion of sensation or impairment of function. This is the only instance in my experience of neuralgia of the anterior crural nerve of syphilitic origin, and I think it important to call special attention to it. The pain began at the crural arch, just below Poupart's ligament, and ran down the thigh to the leg, ending at the inner aspect of the knee. It was aggravated at night, of a severe aching or boring character, and accompanied with slight pain on the same side of the scrotum. My friend Dr. Seguin tells me that this neuralgia, whatever may be its origin, is quite rare, and I find that Anstie held a similar view. I have long had a suspicion that excess of use of a part and various traumatic causes often determined morbid changes in it, particularly when of syphilitic origin, and I made the necessary inquiry in this case, but could not obtain any information of any importance in this particular. It is well to note that the family of this patient was not subject to neuroses, and that he himself had never suffered from them.

The next case is also an illustration of the occurrence of sciatica in secondary syphilis, but there are in its history certain peculiar complicating circumstances:

Case II.—The patient, M. F., a thin but well-built mason, came to me at the New York Dispensary in July, 1868, with gonorrhœa in the second stage. He was very solicitous about his condition, as he now suffered pain in his knee and left sciatic nerve. Three years previously, he had had his first gonorrhœa, which was followed by orcho-epididymitis of the right side and synovitis of the knee-joint of the same side. Besides these troubles, he had had violent sciatica of the left side, which was rebellious to treatment; and this affection and that of the joint had kept him in the hospital for nearly six months. At the end of this time he was left with a slight morning discharge, some stiffness in the knee, and an induration of the epididymis. I treated him with appropriate remedies for the discharge, for the synovitis, which became well marked, and for his sciatica; and he was free from pain in two months. He passed from observation for a year and a half, when he returned to me, having been in the mean time in Mexico and China, with a well-marked indurated chancre. This was in February, 1870. The chancre was of enormous extent, and involved the whole prepuce in a cartilaginous hardness. In April he had a copious papulo-pustular eruption, mucous patches in the mouth, and ecthymatous lesions on the scalp. He later on complained of pains in the muscles of the leg, felt severely at night. In July and August he had a relapse of his cutaneous affection, in the shape of large flat papules scattered over the whole body. During this time he complained of pain in his left sciatic nerve. It began with a feeling of numbness of the back part of the leg, experienced during the day. Within a week, the sciatic pain became so severe that he could scarcely move. The exacerbation began toward dark, and at twelve at night, when the affection was most severe, the pain was described as terrible. He had no rest, and, while he was utterly miserable in the supine posture, he could not walk; therefore he spent most of his time lying on his abdomen. His health then became much impaired, and his appetite was wholly gone. I began immediately injections of the bichloride of mercury, each containing one eighth of a grain of that salt, and for the first week gave them twice daily. The result was great relief on the third day. This was in marked contrast with the effect of large doses of iodide of potassium, which he had just before taken during the day, with opiates at night. He followed treatment with regularity until November, when I missed him until the winter. In January, 1871, he returned, having been in the mean time free from sciatic pain, with a copious discharge and inflammation of both epididymi and testes. In three weeks he again suffered from sciatic pain on the left side, which began with a crawling sensation at the back of the leg. About the same time, he felt a stiffness in the region of the right sciatic nerve, which had never before been painful. For two months from this date he suffered much pain in the left nerve both during the day and also at night, but much the more at the latter time. I questioned him closely, but could not ascertain that the pain was worse on the left side than on the right, as the latter became severe. The testicular trouble was cured by local means, and the patient took iodide of potassium and mercury. It was fully three months before he experienced relief, and for months afterward he suffered from pain in both sciatic nerves. There would then be periods of quietude, in which no pain was felt, but about once in a year he felt pain in the testes; then the left sciatic nerve would become painful. In 1873 he came to me, suffering severely with pain in both nerves (aggravated at night). He was then sallow and cachectic, but there was no genito-urinary trouble. He took mercury and tonics, and followed a careful regimen, but was not relieved permanently until after six months.

This case has always been very interesting to me, as it shows the articular lesion and sciatic pain of gonorrhœa, which was complicated in a marked manner by the syphilitic diathesis. It is interesting to note the decided syphilitic physiognomy, if we may so term it, engrafted upon the sciatica by the general disease, that nocturnal exacerbations were experienced, and that, when syphilitic cachexia developed, the pain in the nerve began and was relieved by mercurials. This, then, I think, is an excellent illustration, as showing that the syphilitic diathesis can complicate and perpetuate simple neuroses, and impress upon them some of its own features.

Case III.—The third case was treated throughout the secondary period by my friend Dr. Briddon. In the sixth year of his syphilis, the patient had severe gummata on the arms. In March, 1870, upon arising early in the morning, just as he was getting out of bed, he became dizzy and felt weak in the arm. Being unable to remove his night-dress, his wife in alarm sent for me. When I arrived, within twenty minutes, he was paralyzed in his left arm and on the left side of his face. He complained of great frontal pain and extreme nausea, and was very weak. His speech was very incoherent, and the movements of his mouth were very much impaired. There was, indeed, thickness of speech. His pulse was 110; temperature normal. Aconite and enemata were administered with some benefit, together with thirty-grain doses of iodide of potassium. At night he could not move the arm or leg, and his thoughts were wandering. I had informed his wife of the probability of the greater development of the paralysis of the arm later in the day, and of the extension of the trouble to the leg. Dr. Briddon saw the patient at nine o'clock p. m., and approved of the use of tincture of aconite root, and of iodide of potassium. I followed the case, running the dose of iodide up to one ounce daily for two months, when the patient could walk. I have records of the temperature, pulse, respiration, etc. At times he took chloral and bromide of potassium for pain in the leg at night. In two months he could walk with a very slight hitch in the left leg in bringing it forward. During the following year he suffered at times for long periods with continuous headache; was often dizzy, always somewhat incoherent, but not much troubled in his speech, and was more or less of an invalid, as his strength was impaired. He attended to his business of horse-trading, however, every day. Within a year of his hemiplegic attack, he began to suffer from pain in the right sciatic nerve. It began with a feeling of numbness at the back of the leg, which soon developed into a pain of much severity. Mercurials were given in full doses with a partial effect. He was cured, or nearly so, in about six months by the employment of mercurial vapor-baths, and the use of iodide of potassium and of various local remedies. He was benefited, indeed the cure was hastened, by a course of natural sulphur-water baths. Here, then, is a man in the sixth year of his syphilis, who has extensive gummata and hemiplegia, which are followed by sciatica. The lesion in the case was, as to the hemiplegia, perhaps due to embolism of the cerebral vessels, but I am uncertain as to the origin of the sciatica. The effect of the mercurial baths was very marked.

Case IV.—My fourth case was treated by Dr. McBride and myself at the New York Dispensary. A man of huge frame, forty years old, and eight years syphilitic, had for six years had extensive gummata on the back. In 1871 he presented a vast space of infiltration in the gluteal region, on the left side, as far down as the lower border of the muscles, where an ulcer fully two inches deep and square in form was seen. When this was at its height he began to have pain in the sciatic nerve. First, he complained of a tickling sensation in the feet, and soon his pain began. The ulcers were actively cauterized, and internal treatment was used. He was cured in six months, but has since had pain at times. In this case the sciatic nerve was in all probability involved in or compressed by the gummatous infiltration.

The remaining case was one of exostoses of syphilis upon the ischium of the right side. The patient was extremely cachectic. The case was simply one of mechanical compression of the nerve.

ON DRUG EXANTHEMATA, MORE PARTICULARLY THE QUININE EXANTHEM.

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That certain drugs internally administered may produce eruptions of various kinds upon the skin has long been known to the profession. The scarlatinoid eruption from belladonna, the rubeolous eruption from copaiba, and the pustular eruption from the iodide of potassium, which may closely resemble small-pox or syphilis, are familiar examples. The fact that the cutaneous manifestations of particular drugs sometimes simulate with alarming accuracy the eruptive fevers renders a thorough knowledge of their nature and general characteristics highly important to the physician. Instances are by no means rare where this resemblance was so striking as to deceive the most skillful and practiced observers. Errors in diagnosis have thus been made, the patient isolated, and the fears of the family aroused; and, when the true nature of the case has transpired, the discovery that the symptoms of a dreaded disease were occasioned by the medicines administered has caused mortification to the physician, and excited the indignation of the patients' friends. This indignation has not been tempered with a heightened respect for the physician's professional knowledge when it has been found that he was ignorant of the effects of the medicines he used.

It is not surprising that there should be a lack of definite knowledge among the profession concerning the irritant effects of drugs upon the skin. The literature of this subject is chiefly embodied in communications to medical journals scattered here and there, and in a few monographs not accessible to the general practitioner. Dermatologists have devoted but little attention to the consideration of this large and clinically important class of affections. One may search in vain for knowledge upon these points in any of our standard text-books on skin diseases. With one or two exceptions, they make no mention of medicinal eruptions, or allude to them only incidentally. Bazin, in his "Leçons thérapeutiques et cliniques sur les affections cutanées artificielles," has devoted a chapter to medicinal eruptions, and assigned to them a distinct place in the nosological category, under the title of "Affections provoquées indirectes, ou pathogénétiques." The greater number of writers on materia medica and therapeutics have passed over in silence the cutaneous manifestations occasioned by drugs, or have referred to them as among the vagaries of disordered action, and as of no great practical importance.

In point of fact, it would seem that in no way could the physiological action of a drug be better studied than when its effects are expressed on the surface and are thus clearly revealed to examination with those unerring senses, the sight and the touch. These cutaneous disturbances, which may be regarded as exaggerated physiological effects—heightened and intensified by individual susceptibility, or by some abnormal condition of the system—may, if rightly interpreted, afford a clew to a more rational explanation of the commoner effects of the drug. Valuable suggestions, if not direct proof, may be obtained from a study of these lesions as to whether certain drugs, the nature and direction of whose action are still involved in obscurity, operate through interference with blood nutrition or nerve nutrition. This line of inquiry might be extended, and, reasoning from analogies of function which the skin presents with other emunctories, the kidneys, for example, inferences might be drawn, from the observed effects of a drug upon the skin, as to its probable effects upon the structure of organs hidden from view.

My object in this paper is to consider the cutaneous effects of drugs from the standpoint of the physician who administers them with a therapeutic end in view. Leaving out of consideration those agents which act as external irritants, there are still such a large number of drugs whose internal use provokes eruptions of the skin that it would be impossible, within the limits of an ordinary journal communication, to discuss them fully. After alluding to the general features of the drug exanthemata, I propose to embody the results of my examination of all the published cases of quinine eruption accessible to me, and, from the material thus accumulated, draw some general conclusions respecting their nature, mode of production, differential diagnosis, etc.

While it is not possible to formulate with absolute precision the distinctive characteristics of the drug exanthemata, or give definite features by which they can in every instance be recognized and at once differentiated from the eruptive fevers, yet they possess certain special attributes which stamp them as a separate clinical class. In general it may be said that the eruption comes out rapidly, it may be from a few minutes to several hours after the ingestion of the medicine, and often vanishes with the same celerity with which it appeared if the offending agent be withheld. In other cases it may require repeated and long continued use to develop its irritating effect upon the skin. If its use be persisted in after indications of intolerance have declared themselves, these effects become intensified, they do not subside so promptly, and they may remain for several days after the drug has been discontinued. Cases of this latter class present many analogies with those of chronic poisoning. In fact, they may be said to depend upon poisoning of the blood, with determination of the morbid phenomena to the cutaneous system.

The eruption is usually accompanied with what are recognized as the ordinary physiological effects of the drug; sometimes, but exceptionally, there is fever, with other evidences of severe constitutional disturbance. The absence of fever and high temperature is an important diagnostic point. The subjective symptoms are sensations of heat, burning and tingling, with the most intolerable itching.

The eruption differs in degree of severity from the simple, fugitive hyperæmia, which rapidly fades, seeming to affect the skin so lightly that it preserves no trace, to the most violent inflammation, terminating in desquamation, sometimes exfoliation of the epidermis in large lamellæ or flakes. Another striking feature is the multiplicity and variety of forms which it may assume: macules, papules, vesicles, bullæ, ulcerations, tubercles, and even the highest form of dermatitis, gangrene, have been observed as the direct result of the administration of drugs. The extent and severity of the eruption seem to bear no definite relation to the quantity of the medicine ingested. Small doses—smaller in fact than are required to produce its recognized physiological effects—may occasion violent disturbances of the tegumentary system.

The eruption caused by each particular drug has a special form—not absolute and unvarying, but sufficiently so to be regarded as typical. Thus, the prevailing type of the quinine exanthem is erythematous, but exceptionally it may be eczematous or purpuric. There are certain regions which it seems to affect by preference, which it first invades, and from which it last recedes. It may remain limited to these points, or rapidly become generalized. The copaiba rash has a predilection for the ankles and wrists; the acneiform and pustular eruption from iodide of potassium, for the face and the back of the neck and shoulders; the hydrate of chloral rash, for the face and neck, etc. The occurrence of one attack, instead of conferring immunity from a succeeding one, appears to confirm and intensify the morbid susceptibility.

Passing now from these general considerations to the examination of the irritant effects of a particular drug upon the skin, I may remark that many physicians, who have constantly and daily employed quinine in their practice for years without observing such results, are incredulous as to this property of the medicine. I have noticed a number of communications, notably one by Prof. L. P. Yandell in the "Louisville Medical News," reflecting this skepticism; but the concurrent testimony of many careful and competent observers is conclusive upon this point. If more direct proof were needed, it may be found in the carefully conducted observations of MM. Bougeron and Proust ("Annales d'Hygiène Publique," May, 1876) upon the eruptions to which workers in quinine manufactories are subject. "The eruption is eczematous in character" . . . "the vesicles sometimes running together, resembling the bullæ of pemphigus"; at other times "drying up, forming scales, thick crusts," etc. These effects are not due solely to external irritation, but in a great measure to absorption of the quinine emanations.

In glancing over the medical journals, one can not fail to be impressed with the larger number of cases reported within the last few years, in which dermal derangements have followed the use of quinine. The number of such cases is so disproportionately large, compared with the records of previous years, that it is evident that the agency of this drug in the causation of skin disorders had not before been generally recognized. Since the introduction of quinine to the profession in 1820, probably no other agent has been so universally employed and in such a great variety of cases; and, while it is presumable that cutaneous disorders frequently have followed its use, yet, prior to the last decade, with the exception of five cases under the care of M. Bouchut in the *Hôpital de la Pitié*, treated with quinine, in which there was observed an erythematous eruption, I find no authenticated record made of such results.

I have collected the records of over sixty cases of quinine eruptions published in various medical journals since 1869.* While making allowances for possible sources of error, inseparable from the nature of evidence as to the action of drugs, the causal connection between the eruption and the medicine in most of these cases may be fully credited. These published cases comprise in all probability but a small percentage of those that have actually occurred. The quinine exanthem is essentially ephemeral in its nature, and its characteristic features are often effaced before the physician can observe it. In many instances reported, the physician was not aware of the peculiar effect of the drug upon the skin, and blindly repeated the dose, redeveloping the rash two or three times successively before its true etiology was appreciated.

My attention was first called to the *dermatopathic* (if I may be allowed to coin a word) effect of quinine by a case which came under my observation some four years ago, and, as its general features are typical of many cases, the records of which I have examined, I will briefly refer to them here. In November, 1875, I had occasion to prescribe sulphate of quinia, in two-grain doses, to a gentleman suffering from some bronchial trouble. He took the first dose late at night on going to bed. Soon afterward he began to experience a feeling of oppression in his chest and a sensation as if his throat were filling up, accompanied with the most intolerable burning and itching over the whole surface of the body. When I saw him, the face was œdematous, and the entire surface was hyperæmic and covered with wheals, most abundant about the face and neck. These symptoms subsided during the day, and I advised him to take another dose of the quinine the succeeding evening. Its repetition was followed by a redevelopment of the urticarial rash, and I now suspected that the two might stand in the relation of cause and effect. I gave no more quinine, and his cutaneous troubles speedily vanished. The patient, who was a retired physician, was as much surprised at these unusual effects of the medicine as myself. He had formerly practiced medicine in a malarious district, and had been accustomed to take large doses of quinine without experiencing anything beyond its ordinary physiological effects. Two years later, in 1877, while traveling in the West, he suffered from some malarial trouble. Remembering his former unfortunate experience, he did not at first take quinine, but, curious to test his vulnerability, he finally decided to try it in one-grain doses. In less than an hour after taking the first dose, he had a violent attack of urticaria, which affected the mucous membrane of the throat and fauces, as well as the entire surface of the body. Since then he has religiously abstained from the drug. The subject of this observation has always enjoyed fair health. He suffers occasionally from lithiasis, associated with torpid liver. At the time of the first attack I examined his urine and found it loaded with urates.

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* See Bibliography. In many of the references here indicated, the details of more than one case were given.

As I have said, the prevailing type of the quinine exanthem is erythematous. In most cases it appears as an efflorescence of a bright, vivid hue, disappearing on pressure, and closely resembling the rash of scarlatina. It first shows itself upon the face and neck, but soon becomes diffused over the whole surface of the body ; in exceptional cases it may not become generalized ; or it may appear in the form of distinct red spots, which usually become confluent and patchy, and the coloration may exhibit a darker hue, resembling that of measles. Again, it may present itself with the typical wheals of urticaria. In this class of cases there is more or less œdema, and the subjective symptoms of burning, tingling, itching, etc., are more distressing. An examination of the sixty cases above referred to shows that many varieties of form are represented. In thirty-eight cases the general character of the eruption was erythematous. It was further described as "scarlatinal," "scarlatinoid," "bright red," "measly," "rubeolous," "papular," "erysipelatous." In two cases it was "vesicular." In twelve cases it was described as "urticarial" with "puffiness of face," etc. Of the severer forms, I have collected five cases of purpura. They are presented with so much detail and by such careful observers that no doubt can remain of the possibility of the occurrence of these hæmorrhagic accidents. Vepan, cited by Jeudi de Grissac ("Thèse de Paris," 1876), reports four cases in which an eruption of petechial spots occurred over the whole body from the use of comparatively small doses of quinine. In one case the purpura was accompanied with bleeding from the gums and sanguinolent stools.

Gauchet ("Bulletin de Thérapeutique," t. lxxix., p. 373) reports a case in which the intolerance of quinine was so absolute that small doses, only ten centigr., continued for four days, produced purpura with buccal hæmorrhage, principally from the gums. The petechial spots were abundant and generally distributed. In this case Gauchet gave quinine in opposition to the wishes of the patient, who stated that she had taken it before, and that it always caused her to spit blood.

Of the bullous form of the eruption I have less specific details. M. Panas, cited by Bougeron and Proust ("Annales d'Hygiène Publique," 1876), affirms that the administration of large doses of quinine (two to three grammes, as is the custom in Algiers and Greece) provoked an eruption presenting the characters of the bullæ of pemphigus.

In one case, reported by Professor Schuppert, six-grain doses produced an intense localized dermatitis, with commencing gangrene of the scrotum. In one of Professor Köbner's cases ("Berliner klinische Wochenschrift"), quinine always produced an erysipelas of the scrotum. In several cases this special tendency to irritate the skin of the genital parts is noted.

In many of the cases reported, several successive outbreaks of the eruption occurred, because the physician either repeated the dose without suspecting the causal association of the remedy and the disease, or did so because he wished to satisfy his own mind as to the patient's susceptibility. It is worthy of note that what may be called the idiosyncratic intolerance of the drug may be an acquired peculiarity. In a number of the cases, my own among them, the patient was previously accustomed to take large doses of quinine without any unusual effects upon the skin.

The cutaneous disturbances have seemed to follow indifferently the exhibition of any of the preparations of cinchona.

In two or three cases where preparations of the bark were given, the physician, thinking that the irritant effects might be due to some adulteration, substituted the alkaloid, with a repetition of the same effects. In a majority of the cases what may be regarded as small doses—one to two grains—were given. The subjects of these observations, I had almost forgotten to state, were mostly females. The greater fineness of the skin and its more exquisite sensibility in women would explain its relatively greater susceptibility to irritant action.

The quinine exanthem derives its chief clinical importance from its close resemblance to the rash of scarlatina. This resemblance is rendered more real from the congestion and swelling of the mucous membrane of the throat and fauces and the subsequent desquamation, which may be more or less complete, and may last from a few days to several weeks. In one case, reported by Dr. Pflüger (" Berliner klinische Wochenschrift," June 18, 1877), there was exfoliation of the epidermis in large lamellæ, giving a complete cast of the fingers like a glove. When the eruption is accompanied with fever and high temperature, as in the cases of Professor Köbner and two other reporters, its similitude to scarlatina is so perfect as to deceive the most skillful and experienced physicians, but these cases are quite exceptional. The differential diagnosis is usually easy, from the absence of fever and high temperature, the sudden development of the rash, and its rapid subsidence upon the suspension of the medicine.

In this connection, I would venture the suggestion that many cases which have been recorded as " recurrent attacks of scarlatina and measles," " dermatitis exfoliativa," " anomalous forms of skin disease," etc., were in reality examples of drug exanthemata.

In endeavoring to arrive at a correct appreciation of the rationale of the production of medicinal eruptions, we are confronted by that bugbear of therapeutical investigation—idiosyncrasy. This, arising as it does from inappreciable causes, must always constitute an absolute obstacle to positive knowledge of the action of drugs. Why in certain cases the system may be saturated with quinine, iodide of potassium, etc., without making the least impression upon the skin, and in other cases the smallest dose may occasion the profoundest disturbance, must in the present state of our knowledge remain a mystery. We can only say that persons who exemplify this latter class of cases possess an aptitude or susceptibility to the action of the drug at once individual and inexplicable. But, however tempted we may be to take refuge behind idiosyncrasy as a cloak for our ignorance, it should not be allowed to shut out what light may be thrown upon the explanation of these phenomena from other sources.

The phenomena observed in the more common forms of drug eruptions are essentially those of active hyperæmia. Whether it be through vaso-motor agency, or as the direct result of blood intoxication, there are in all these cases dilatation of the cutaneous vessels, increased blood-supply, redness, œdematous infiltration, etc. The various lesions—macules, papules, wheals, vesicles—met with represent different degrees of the same morbid process. In purpuric cases, there may be diminished vitality of the cutaneous vessels, permitting transudation of blood through their weakened walls, or the drug may in some unknown way modify the composition of the blood, affecting its corpuscular elements in such a manner as to favor extravasation. It is well known that quinine may cause hæmaturia, bloody stools, etc. The influence of diathesis or cachexia as a predisposing cause in these cases has not been studied. One theory of the quinine exanthem is, that the drug may act, just as irritating food sometimes does, by stimulating the sensory nerves of the gastric mucous membrane, producing reflex dilatation of the cutaneous vessels. This explanation is so manifestly inadequate to cover more than a few cases that it may be dismissed without further consideration. There is no doubt that the medicine is taken up into the circulation, and that, in the process of elimination, it stimulates the functional activity of the skin.

I apprehend that the true cause of the determination of the irritant effects of drugs to the skin will be found in some impairment of the integrity of the eliminating organs. It is well known that there is an intimate interdependence between the functions of the skin and those of the other emunctories, especially the kidneys. Many skin diseases are caused by the non-elimination of nitrogenized matters, leading to impaired purification of the blood, the result of the defective action of the kidneys. In these cases the skin acts as a compensatory excreting organ. This mutual action and reaction is shown in many cases of suppression of urine, in Bright's disease, in desquamative nephritis, etc., where the skin excretes urea freely. Quinine is almost exclusively eliminated by the kidneys. When from any cause this channel of egress is blocked, and the skin, by virtue of its vicarious function, attempts to perform the work of elimination, the drug may exert a direct irritant effect through the blood upon the tissues of the skin, causing disorders of capillary circulation, of which the eruption is but the outgrowth.

It has been suggested that certain constituent elements of the skin have an elective affinity for certain drugs—the sebaceous glands for iodide of potassium, the sweat-glands for quinine, etc., but this hypothesis rests on a very slender support. While quinine has been found in the sweat, as in the bronchial mucus, the saliva, and other secretions, there is no proof that it exerts a special action upon the sudoriparous glands.

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EXTERNAL RECTOTOMY AS A SUBSTITUTE FOR LUMBAR COLOTOMY IN THE TREATMENT OF STRICTURE OF THE RECTUM.

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About two years ago, having under my care a woman suffering from constitutional syphilis, and from an old stricture of the rectum which had resisted previous treatment by bougies, I was induced to try the operation of internal rectotomy. The contraction was so great as barely to admit the passage of the end of the finger, and above it there was a large ulceration. Under ether, the sphincter was stretched and the stricture divided posteriorly by a single deep incision, which certainly divided all of the cicatricial tissue and reached nearly to the sacrum. The patient recovered nicely from the immediate effects of the operation, and after a few days water-bags and soft bougies were employed to prevent recontraction. These caused much irritation and suffering, the rectum became very tender, and all further interference was prevented by an attack of pelvic cellulitis which nearly cost the patient her life. I have always considered this complication a result rather of the attempts at dilatation than of the incision itself; but be that as it may, the woman expressed herself as unwilling to submit to any further treatment, and after a few months passed out of observation not materially relieved. Since that time I have been surprised at reading in Mollière * the following sentence: "We are right, then, to-day in considering linear rectotomy as the best method known up to the present time for curing grave contractions of the rectum, or at least of palliating the symptoms to which they give rise."

The word rectotomy, as at present used, means little more than would the analogous word urethrotomy without some qualifying adjective. The French writers describe an internal, an external, and a linear rectotomy, which they distinguish from each other; and, to avoid ambiguity in the description of cases, it may be as well for us to adopt the names used by Mollière, in whose work no fewer than six different procedures are grouped under this title: 1. Nicking the stricture at one or more points, to be followed by subsequent dilatation. 2. Excising a portion of the cicatricial tissue. 3. Crushing a portion by an instrument similar to the enterotome of Dupuytren. 4. *Internal rectotomy*, or free incision in the median line, either anterior or posterior, of the whole of the cicatricial tissue, but not of the sphincter. 5. *External rectotomy with the knife;* or division not only of the stricture, but of all the parts below, including the anus. This is the operation usually accredited to Nélaton, and is thus described by Panas: "The patient being in position on the side, the left index-finger is introduced as far as the stricture, and acts as a guide for a blunt bistoury introduced flatwise and turned with the edge backward so as to divide all the soft parts as nearly as possible in the median line. The incision thus made grows deeper as it approaches the skin, forming a large funnel-shaped canal, the apex of which corresponds to the stricture now rendered visible especially by making traction downward and outward on the lips of the wound. Nothing is easier than to introduce then a bistoury through the stricture, which is incised posteriorly sufficiently to pass a catheter two centimetres in diameter, which is left in as long as possible." 6. *External rectotomy with the écraseur or the galvano-cautery* (linear rectotomy of Verneuil). We give Verneuil's own description. "The left index-finger is introduced into the rectum with the first phalanx flexed at a right angle, passing through and hooking into the stricture. A trocar is then plunged through the skin at about two centimetres from the tip of the coccyx in the median line, and forced through the rectum on to the pulp of the finger a few centimetres above the stricture. After drawing out the trocar, a fine bougie is passed through the cannula into the rectum, and brought out at the anus. Removing the cannula, the bougie is replaced by the chain of the écraseur, and the operation is completed exactly as in the case of an ordinary fistula." When there are fistulous tracts already existing and opening into the gut above the stricture, one of these may be used for the passage of the chain.

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* "Maladies du rectum et de l'anus," p. 339.

For the purpose of this article we shall consider only the last three of these operations, which are the ones especially adapted to severe cases, and by all of which the stricture is completely divided—two dividing the sphincter muscle and the anus as well. By searching through the journals of the past few years, I have succeeded in tabulating the following cases of these operations, which have been condensed for purposes of comparison. Many of them unfortunately are briefly reported, and others, not given here, I have omitted, finding it impossible to tell exactly what operation was performed or what were its results. In all of those reported below the disease was so severe as to render the milder methods of treatment of no avail, and in all in which the contrary is not expressly stated, it was so near the anus as to bring the stricture below the reflection of the peritonæum.

INTERNAL RECTOTOMY.

1. WHITEHEAD.—Old fibrous stricture: anterior and posterior incision with bistoury, followed by dilatation. Two months later, much improved; passages large and natural; dilatation continued.—"Amer. Jour. Med. Sc.," Jan., 1871.

2. LENTE.—Fibrous stricture and fistula: incision followed by dilatation. Three months later, much relieved, with prospect of entire cure by continuing the use of bougies.—"Amer. Jour. Med. Sc.," July, 1873.

3. BEANE.—Probably syphilitic: incision both anterior and posterior, followed by use of dilators. Seven months after, cure of ulceration and of many bad symptoms, but tendency to recontraction.—"Amer. Jour. Med. Sc.," Apr., 1878.

EXTERNAL RECTOTOMY WITH THE KNIFE.

1. PANAS.—Female, aged 33. Syphilitic stricture, very dense and painful; eight years' duration. Incontinence for three months after operation. Eighteen months later, described as completely cured.—"Gaz. des Hôp.," Dec., 1872.

2. WHITTLE.—Hard annular stricture, very close: one fistula. Operation as for ordinary fistula. Hæmorrhage troublesome and controlled by thermo-cautery. Three weeks later, "general health completely restored and local condition greatly relieved."—"Lancet," June 1, 1878.

3. PANAS.—Woman, age 40. Stricture probably syphilitic. Two previous operations by slight internal incision, and two attempts at cure by dilatation. Patient very feeble; suffering from abdominal distention; signs of approaching occlusion; ovarian tumor; diarrhœa and vomiting. Operation followed by relief of pain and by great comfort; no tendency to return; vomiting and diarrhœa continued till death, some time after, from exhaustion. Post-mortem examination showed the complete success of the operation, and the division in the fibrous tissue.—"Gaz. des Hôp.," Dec., 1872.

EXTERNAL RECTOTOMY WITH THE ÉCRASEUR, GALVANO-CAUTERY, OR THERMO-CAUTERY.

1. TRÉLAT.—Ano-rectal syphiloma, of several years' duration, with great thickening, ulceration, and fistulæ. Operation (kind not stated) five years before, unsuccessful. Galvano-cautery. Nine days after operation; pneumonia and facial erysipelas. Death in three weeks without local accident.—"Prog. Méd.," June 22, 1878.

2. VERNEUIL.—Stricture of several years' duration; great induration and tumefaction, and twenty fistulous tracts. Three operations; first, on one half the fistulæ; second, on remainder; and third, on the stricture with écraseur. Four months later, "wound healed and functions of the rectum entirely reëstablished."—"Gaz. des Hôp.," 1872, p. 1028.

3. VERNEUIL.—Previous syphilis; great constitutional disturbance; scrotum enlarged to three times its natural size by fistulous tracts, of

which there were twelve. Écraseur through one of the fistulæ—others operated on a month later. Two years later, parts had regained their suppleness and all traces of disease had disappeared.—*Loc. cit.*

4. Verneuil.—Patient in bad general condition. Two operations with écraseur at six weeks' interval. First, posterior rectotomy with division of posterior fistulæ; second, anterior rectotomy with division of anterior fistulæ. Incontinence lasted only a few days. There was marked tendency to recontraction, due to the fact that the stricture was so extensive that the chain was not carried to its upper limit, and a distinct zone of cicatricial tissue was left.—*Loc. cit.*

5. Verneuil.—Woman, reduced to last degree of marasmus, with hectic. Stricture complicated with much ulceration above and below, and three or four fistulæ. Operation followed by great relief of all symptoms. After several years, again examined: general condition still good, but a very appreciable recontraction of a year's duration.—*Loc. cit.*

6. Verneuil.—Stricture very close and hard; previous dilatation without effect. Phlegmon existing on one side, and old fistula on the other. Abscess laid open and chain passed through it into gut above stricture. Four years later, died of phthisis, having been entirely free from symptoms in mean time. Before death, stricture admitted two fingers easily.—*Loc. cit.*

7. Verneuil.—Constriction very hard and close; also fistula. It was found almost impossible to pass trocar beyond the contraction on account of its great hardness, and this was finally accomplished only by boring a tract with a pair of curved scissors. The écraseur required three quarters of an hour to cut through. Several months later, general state very satisfactory; rectal wall had partly regained its suppleness; no difficulty in defecation, but a still appreciable contraction, due to the fibers which were too high up for the chain.—*Loc. cit.*

8. Verneuil.—Previous syphilis. General condition bad. Stricture consisted of a limited contraction of the posterior and upper fibers of the sphincter, and disappeared on prolonged pressure with the finger. Two previous operations, one by internal incision, the other by nicking and dilatation. Division by trocar and écraseur; incontinence for a few days; after three weeks, passages natural and all symptoms relieved. Three years after, again examined, and found suffering from rectal syphiloma developed since operation, together with tertiary eruptions.—*Loc. cit.* [History completed by Tison in "Thèse de Paris."]

9. Verneuil.—Previous syphilis; stricture annular; much constitutional disturbance, great pain, diarrhœa, colic, and discharge of pus. Operation of *internal* rectotomy with thermo-cautery, followed by phlegmon. Abscess opened and external operation done with thermo-cautery through abscess cavity. One month later, relief of all symptoms; return of suppleness in parts; stricture admitted two fingers easily; tendency to recontraction in posterior part of rectum; anterior part healthy.—Tison, "Thèse de Paris."

10. Verneuil.—Rectal syphiloma; anæmia and loss of flesh; great tenesmus. Thermo-cautery. Incontinence for three weeks. Reported completely cured after three months.—Tison.

11. Verneuil.—Stricture probably inflammatory, with several fistulæ. Thermo-cautery. Incontinence for three weeks. After five weeks, appetite and strength returned; passages easy and painless.—Tison, *loc. cit.*

12. Gosselin.—Syphilitic. Forced dilatation three years before. General condition very bad from excesses of all kinds; passages very frequent and painful. Thermo-cautery followed by temporary relief. Four months later, condition same as before with signs of commencing phthisis.—Tison, *loc. cit.*

13. Tillaux.—Valvular stricture, posterior, with ulceration; anterior portion healthy; several fistulæ. Galvano-cautery. Three years later, complete cure and no return.—Tison, *loc. cit.*

14. Tillaux.—Old stricture, probably syphilitic, with general cachexia —so great as to resemble that of cancer. Écraseur. Four years later, remained completely cured.—Tison, *loc. cit.*

15. Tillaux.—Probably syphilitic; previous rupture of perinæum; enormous dilatation of anus; incontinence of fluid fæces; general condition exceedingly bad; signs of occlusion. Operation undertaken without hope of cure, but to relieve symptoms. Galvano-cautery from without inward, with cautery knife. Life prolonged five months, with freedom from suffering.

16. Verneuil.—Dysenteric contraction high up, twelve centimetres from anus. Under mistaken diagnosis of spasmodic stricture of sphincter, that muscle was divided with cautery. Entire relief from pain, but continued symptoms of retention.—Tison, *loc. cit.*

17. Labbé.—Probably syphilitic; much pain; abscesses; fistulæ. Division with galvano-cautery, followed by considerable hæmorrhage, and tampon. After a time, slight return of contraction at margin of anus, the rest of gut remaining supple. Second operation by Verneuil with thermo-cautery followed in course of six months by prolapse of rectum, which was cured by cauterization of the posterior edge of the anus. Considerable amelioration of suffering.—Tison, *loc. cit.* [quoted from Cerou, "Thèse de Paris"].

18. Verneuil.—Syphiloma of long standing; great anæmia; intolerable pain; constant purulent discharge; previous dilatation unsuccessful. Écraseur, followed by dilatation. Four years later, absolute cure. No induration; sphincter acting well.—Tison, "Thèse de Paris."

19. Fochier.—Stricture of many years' standing. Patient feeble and emaciated; great gastro-intestinal derangement, and two fistulæ. The constriction was first divided with a bistouri caché to admit the finger, and operation completed with the écraseur. Control of sphincter after the first few days. Left hospital ten days after operation, with appetite and digestion good and general health much improved, having soft passages of the size of the finger.—"Lyon Méd.," Feb. 20, 1876.

CANCERS.

1. VERNEUIL.—Cancer. Écraseur, followed by immediate relief; decrease in induration; recovery of appetite and strength. Death from subsequent operation of excision.—"Gaz. des Hôp.," 1872.

2. VERNEUIL.—Cancer reaching beyond point of finger; sphincter continually in contraction, and violent pain caused by slightest touch; attempts at dilatation followed by phlegmon and fistula; constant pain and tenesmus, with bloody passages; insomnia; rapidly approaching fatal termination. The operation consisted merely in dividing the sphincter with écraseur without touching the cancer, and the relief was so great that the patient left hospital believing himself cured.—"Gaz. des Hôp.," Nov., 1872.

3. VERNEUIL.—Cancer, with all the usual symptoms, and approaching occlusion. Écraseur; death on ninth day from peritonitis.—"Gaz. des Hôp.," Nov., 1872.

4. VERNEUIL.—Cancerous stricture high up, and very close; constant suffering from discharges of gas and pus. Écraseur passed as high as possible, but not high enough to divide upper portion. Considerable relief, cessation of pain; passages easy for several months. Death finally from progress of disease.—"Gaz. Hebdom.," Mar. 27, 1874, p. 196.

5. VERNEUIL.—Epithelioma involving right half of rectum and reaching too high for extirpation; ulceration; loss of flesh and strength; great pain on defecation; retention. Sphincter divided with chain on left side in such a way as not to involve the cancer. One year later, freedom from pain; general state good; incontinence following operation disappeared; difficulty in passage of solids overcome by seltzer; gradual advancement of cachexia.—"Gaz. Hebdom.," Mar. 27, 1874, p. 196.

6. VERNEUIL.—Cancer high up, involving prostate and vesiculæ seminales. Continued diarrhœa and incontinence, and bad general condition. A double posterior external operation was done with the chain, and the portion included between the two incisions cut away, with the idea of relieving pain and retention and opening a passage for the subsequent application of escharotics to the cancer. Operation followed by immediate relief of worst symptoms.—"Gaz. Hebdom.," Mar. 27, 1874.

7. NÉLATON.—Operation done with bistoury. Relief continued till death, eighteen months after, from extension of malignant disease to the pelvis.—Panas, "Gaz. des Hôp.," 1872, p. 1149.

8. FOCHIER.—Cancer of posterior part of rectum, reaching to height of ten centimetres. Great pain and tenesmus; fœtid and bloody discharge; loss of sleep. Complete division with écraseur. Left hospital ten days after, believing himself cured. After two months, had no more pain and no incontinence, except when suffering with diarrhœa. Had two regular passages daily, and complained only of not regaining his strength. In this case the section extended to the unusual height of twelve centimetres from the anus.—"Lyon Méd.," Feb. 20, 1876.

Regarding the operation of internal rectotomy, there is not very much to be said. There are as yet hardly sufficient published cases for us to judge what chances of radical cure it really offers, but it involves no new principle of treatment, and would seem to rank rather with the older procedures, such as nicking and dilatation, than as a substitute for colotomy. There have been many unpublished cases, especially in New York, and I should probably express the general feeling of the profession, were I to say that it is not looked upon with very great favor; there generally being only temporary relief, with a decided tendency to recontraction. Though at first sight it might appear less serious than the external operation, it is probably the more dangerous of the two—the sphincter preventing the free discharge from the wound and increasing in this way the liability to pelvic inflammation. This muscle should at least be stretched as a primary step in the operation, and when possible a large drainage-tube should be left in. The danger of hæmorrhage is not very great when the incision is confined to the median line, but, should there be trouble from this cause, the advantage of a free external wound in controlling it will at once be manifest. When the cut is anterior as well as posterior, the anatomical relations must be borne in mind, lest the peritonæum in the female, or the bladder in the male, be wounded. Finally, there is a long course of painful subsequent dilatation still before the patient, to preserve the caliber which the incision gives, and this in itself is the most serious of the practical objections.

Coming, then, to the external operation, we have a table of twenty-seven cases, eight malignant and nineteen non-malignant. All were cases in which lumbar colotomy would have been appropriate, being of long standing; some complicated with numerous fistulæ, and having resisted previous treatment by dilatation or internal incision. Of these, three were divided with the knife, and the others with the écraseur or cautery. Only one was fatal as a direct result of the operation, and that one on the ninth day, from peritonitis. One patient died of pneumonia and facial erysipelas three weeks after the operation, but with no local accident to the rectum.

In one only was there no permanent benefit from the operation, the condition after four months being much the same as before. In the remaining eighteen of the non-malignant cases, all the patients were greatly relieved as to general health, or local condition, or both. In eight kept under observation for a period of from three months in one case to four years in three cases, the cure is said to have been absolute, there being no return of the contraction, and in some a disappearance of all induration. A tendency to recontraction is mentioned in four, due in two to the fact that all of the stricture was not divided. In the seven cases in which special mention is made of this symptom, the incontinence resulting from division of the sphincter is said to have lasted from a few days to three months. Of the malignant cases, all the patients except the one who died are reported as greatly relieved of their sufferings; and life was prolonged in comfort till the final death of the patient from the natural course of the disease. One is reported as still comfortable one year after operation, and another died eighteen months afterward.

It will be seen at once that nothing less is claimed for this operation than that it is a substitute for lumbar colotomy in all those grave cases of stricture for which that operation is now done, and which are near enough to the anus to allow of the performance of the former without implicating the peritonæum. The cases quoted above are not very numerous, it is true, but, as far as they go, colotomy can show nothing better either in the way of relieving pain or prolonging life; and, if the results of the minor operation are anything like as good as those of the other, its many advantages do not need to be enumerated.

One point which is exceedingly well brought out in the study of these cases is the important part played by the sphincter muscle in the sufferings accompanying stricture, and the relief given by its simple division without interference with the stricture itself. The relief of pain is perhaps as often an indication for colotomy as is threatened obstruction, and, should it be proved by results that this indication may be met by the complete division of the sphincter, the field of the major operation is again narrowed. In the list of cases there are several which point very decidedly to this conclusion: case 16, of Verneuil's, for example, where, under a mistaken diagnosis, the muscle alone was divided, while the stricture higher up remained unrelieved, and yet there was entire relief from suffering, the patient having to contend only with the mechanical obstruction to the passage of fæces; also, case 2 among the cancers, where again the contraction was high up and the division of the muscle was done, this time deliberately, with fully as much relief as could have been gained by colotomy—so great, in fact, that the patient believed himself fully cured, though all the physical signs due to the retention remained unrelieved; again, case 5 of the cancers, in which the disease was on the right side, and the muscle was divided on the left, and in which life was prolonged for more than a year with comfort, the mechanical obstruction being relieved by mild aperients.

The question at once arises, how many patients have submitted to all the dangers and discomforts of an artificial anus in the loin or abdomen, not so much for obstruction as for a sphincter muscle constantly in a state of irritation, which might have been relieved by its simple and complete division?

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A CASE OF FRACTURE OF THE SPINE, TREATED WITH A MODIFIED "SAYRE'S JACKET."

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JOHN H. H. (colored), aged nineteen, born in Maryland, on the night of August 8, 1879, took refuge from the rain in a sitting position under a burthen-car. At 5 A. M. the next morning the car was moved, and he was doubled up under it. At 6 A. M. he was brought to the Baltimore City Hospital in great pain. On examination, there was found to be a simple fracture of both bones of the left leg, a comminuted fracture of the right femur in its lower fourth, and a distinct fracture of the ninth and tenth dorsal vertebræ—there being a depression of the spines, crepitus, and the general symptoms given below. On a line running obliquely from the anterior superior spines of the ilia to the hypogastrium there was such marked hyperæsthesia that the patient could not even bear the pressure of the bed-clothes. Below this line there was a marked degree of anæsthesia, but the patient could tell after deliberation what part was touched. Under chloroform, a well-padded pasteboard splint was applied over the spine, another extending from above the crista ilii of the right side to below the right knee. German gauze without plaster was rolled evenly and smoothly around these, commencing below and extending up to the axillæ. After two layers had been applied, plaster-of-Paris cream was smeared over them until the coating was about one eighth of an inch in thickness. In addition, two layers of "lino" * were rolled on, and another coating of plaster was applied, extension being kept up all the time by assistants pulling upon the shoulders and legs. The left leg was put up in a similar apparatus. The urine was drawn off and found charged with mucus and phosphates. There was no great amount of shock at any time.

On the next day the patient complained of a sense of constriction about the chest, and partly cut up the jacket to relieve this, but not enough to seriously interfere with its efficiency. From this date, with the exception of the hyperæsthetic line above spoken of, the man was perfectly comfortable; his highest temperature being 101·6°, and highest pulse 116. The bowels at first required injections, but soon both they and the bladder recovered their functions. On August 30th, the jacket was removed, but the splints were retained upon the thigh and leg. In the seventh week the patient began to suffer from what I could only call "hospitalism"—anorexia, vomiting, slight fever, headache, and some jaundice, with sluggish bowels. This condition passed away, however, in about ten days. No bed sores made their appearance at any time, and the line of hyperæsthesia passed away suddenly, in the night, during the fifth week. On October 13th, the patient was propped up in bed in a sitting posture. The paralysis of the lower extremities, which had been complete immediately after the injury, had at this time so far passed away that the man could contract slightly the quadriceps extensor of the thigh and the leg muscles, but could not lift the lower limb from the bed. The comminuted fracture of the thigh had firmly united, with a large mass of callus. Some adhesions in the right knee-joint were broken up. The left foot showed commencing talipes equino-varus. The patient could not walk on crutches, but could sit upon a chair.

Present condition, January 15, 1880.—There is a deep sulcus corresponding to the spines of the ninth and tenth dorsal vertebræ, with a distinct projection backward of the whole spine at that point. No pain is complained of when pressure is made anywhere over the spine. The knees bend to a right angle, and the talipes of the left leg is decidedly less, while there is still some hyperæsthesia of the left limb. Although the compass points yielded negative results, there seemed to be a decidedly sensitive band about two inches wide, running across the abdomen and parallel with the crests of the ilia. The man now walks well upon the right leg by pushing a chair before him with the left hand, and using a cane with the right, but drags the left leg. The talipes is disappearing, and, with the exception of the deformity of the spine, he seems to be in a fair way toward complete recovery.

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* A local name for a coarse quality of German gauze.

SYMPATHETIC AMBLYOPIA, RAPIDLY DESTROYING SIGHT; PROMPT RELIEF BY NEUROTOMY OF THE OPTIC AND CILIARY NERVES OF THE LOST EYE.

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S. J., aged thirty-five, a farmer, lost his right eye six years ago, from suppurating inflammation. During this attack, the cornea gave way, with iritic hernia. This eye was left with a very large central corneal leucoma, showing a very small circle of iris, and no pupil. In time, this eye acquired a squint of five degrees, and all useful sight in it was lost. The eye gave no pain, was not injected, and the squint caused no special annoyance. One month since, the left eye gave evidences of some growing defect, light did not annoy, but small objects could not be distinctly seen. Within two weeks, reading had to be given up, and his sight had become so foggy that the work on the farm could not be satisfactorily attended to. At this time he came under my observation. He could not make out No. XX of Jaeger's test-types, however closely they were held to the eye. Three weeks since, he believed this left eye perfect, and could read fine print without trouble. I examined the eye with all care. There was neither pain, photophobia, lachrymation, nor injection. Ophthalmoscopically, I could find no pathological lesion. The media were clear, and the color of the fundus was good. The retinal vessels were in good condition, and were sharply defined on a normally tinted disk. The patient did not drink ardent spirits, nor did he use tobacco. Not finding any appreciable cause for the rapidly increasing amblyopia, I, however, prescribed strychnia in full doses, with the intent of carefully watching its effects, and, at the same time, the progress of the approaching blindness. The dose at first was $\frac{1}{20}$ grain three times a day, which in a few days was increased to $\frac{1}{10}$ grain. At the end of two weeks of treatment, my patient became so blind that he could not count fingers at four inches from the face, and blindness seemed imminent. The ophthalmoscope still revealed nothing. There was no evidence of a cerebral cause for the rapidly disappearing sight, and in every other respect the patient was in good condition.

For want of a better explanation, I conceived the idea that the lost eye, with leucoma and anterior synechia, was in some way accountable for the loss of vision, and that this was a case of suppression of sight from some obscure sympathetic irritation. The leucomatous eye was of no use to him, and in any case was very disfiguring from its ugly squint. He was quite willing to get rid of it, if I thought that the operation would in any way help the restoration of sight in the eye which had been his sole dependence for the past six years. I determined to perform optic-nerve and ciliary-nerve section on this squinting eye, and at the same time, by the liberal section of the internal rectus necessary to get at the nerves entering the back of the eyeball, correct the squint. The section of the muscle and nerves was made under chloroform. When the nerves were all divided, the tendon of the rectus was not stitched in place, as is usual in neurotomy upon straight eyes, but was allowed to take care of itself and find a posterior surface for adhesion to the eyeball. The day after the tenotomy and neurotomy of the right eye, the patient thought his sight in the left eye decidedly stronger. By the end of the first week his field of vision had so extended that he could recognize friends at a considerable distance, and could read No. XVI of the test-types. By the end of the second week vision had been entirely restored. He now could read "brilliant," with $V = \frac{20}{20}$ in an eye with which he could not count fingers fifteen days before. All medication stopped when the operation was determined upon. The strychnia treatment had effected nothing, and no indications for other internal medication had existed.

Sympathetic retinal amblyopia threatening blindness is by no means a common form of trouble in the sound eye from the extension of nerve influence from a lost one. In this case the neurotomy seemed to have established clearly this sympathy, as the isolation of the lost eye promptly brought the desired relief.

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Lectures.

A CLINICAL LECTURE,

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(Reported for the "New York Medical Journal.")

URÆMIC CONVULSIONS IN CONNECTION WITH HARD, CONTRACTED KIDNEY.

Gentlemen: To look at the patient now before you one would hardly be likely to suppose that there was very much the matter with her; and yet she is the subject of an affection which from time to time gives rise to the most serious and alarming symptoms. It is true that she does seem a little anæmic, but with this exception her countenance does not present at all a morbid appearance, and her general condition is apparently that of an individual in the enjoyment of ordinarily good health. I merely call your attention to this circumstance before passing on to the history of the case, in order to suggest to you that appearances are sometimes deceptive, from a medical point, as well as from other points, of view.

The patient's name is Lillie R——, and she was admitted to the hospital just one week ago to-day. She is twenty-one years of age, and married, and she has had one child and two miscarriages. Her mother died of phthisis, and she herself is the only one remaining of a family of nine children, most of whom died in infancy. She has usually enjoyed good health, but had five attacks of illness previous to the one on account of which she has sought admission here. These were all of the same character, and, according to her account, consisted of violent paroxysms, characterized by foaming at the mouth and unconsciousness. One of these occurred in the West, two in New England, and two in New York.

When she was brought to the hospital a week ago she was suffering from what was apparently a malarial chill; although the occurrence of certain unusual nervous phenomena in connection with it seemed to raise some doubt as to whether it was really of this character. In passing, I may remark that we are not infrequently called upon to decide whether a chill is malarial or not, and it is by no means always an easy question to determine. There is one point of considerable weight as regards this, however, which it may perhaps be well for me to mention, and that is that, if it is malarial, it is far more apt to occur in the morning than later in the day; while, if it is not, the chances are that it will occur after noon. In the present instance the chill commenced at two P. M., and lasted till half-past five, when the house physician was hastily summoned to see the patient. He found her in a state of clonic convulsions, and frothing at the mouth; but there was no biting of the tongue. Eight ounces of urine were at once drawn off with the catheter; and when a specimen of this was examined it was found to be of a specific gravity of 1·022 and to contain albumen, together with hyaline and light granular casts. This, of course, established with reasonable probability (although not certainty) the fact that the patient was in uræmic convulsions. It is a problem which sometimes comes up in the practice of the physician to decide what is the nature of the convulsions from which he finds an individual suffering to whose side he may have been suddenly called, without any opportunity for learning anything whatever of the previous history of the case. A good point is to notice whether the tongue has been bitten, or whether there are any cicatrices on it indicating that this has been done in previous attacks. Such evidence is usually lacking when the convulsions are due to uræmia, but is very apt to be present if the patient is the subject of epilepsy. The crucial test for diagnosticating uræmic convulsions, however, is found in the examination of the urine. It is true that this may contain a small amount of albumen as the result of the convulsions themselves; but if this constituent is present in any considerable quantity we may be reasonably certain that we have uræmic poisoning to deal with, notwithstanding the fact that there may not be the time or opportunity for a microscopical investigation.

The convulsions in the present instance lasted from two o'clock in the afternoon until half-past four the following morning, and the treatment consisted mainly in the free use of morphia, in the form of Magendie's solution. There is no question in my mind that the administration of morphia in pretty free doses is of considerable service in quite a number of cases of uræmic poisoning; and it seems to do good by placing the system in such a condition that it will tolerate the presence of a large quantity of urea in the blood. As soon as the uræmic character of the convulsions was ascertained, the patient was given eight minims of Magendie's solution of morphia hypodermically, and half an ounce of the infusion of digitalis by the mouth. At half-past seven o'clock ten minims more of the morphia-solution were administered in the same way, and after that a like quantity at half-past eight, at half-past nine, at twelve, at two, and at four in the morning; so that altogether sixty minims were given between seven and a half P. M. and four A. M. At half-past seven in the morning, three hours after the convulsions ceased, one fifth of a grain of muriate of pilocarpine was administered hypodermically, and during the whole of that day there was no return of the convulsions. Nausea and vomiting, however, were now becoming prominent symptoms; but they were promptly controlled by the application of a sinapism to the epigastrium and the administration of chloroform in one-drop doses.

From this time the patient was comfortable and did well up to the fourth day from the commencement of the attack, when some of the minor symptoms of uræmic poisoning, such as nausea, headache, tremor, and impaired vision, began to exhibit themselves. At eleven A. M. on this day, accordingly, two minims of Magendie's solution of morphia were administered, and at one P. M. one fifth of a grain of muriate of pilocarpine. At five o'clock profuse diaphoresis took place (with little or no flow of saliva), and the symptoms mentioned promptly disappeared. There is every reason to believe, therefore, that this treatment warded off another attack of convulsions. The next day the patient was up and walking about the ward, and since then she has seemed to be perfectly well. Until to-day she has been taking half an ounce of infusion of digitalis three times a day.

A careful record of the temperature has been kept since the patient has been an inmate of the hospital, but there has never been any febrile reaction. On the fourth day after the onset of the convulsions (that on which the symptoms indicated the commencement of a new development of uræmic poisoning) the quantity of urine was about one half the amount ordinarily passed during the twenty-four hours by an individual in good health. It was dark in color, acid in reaction, and of a specific gravity of 1·015, while it contained albumen and both light granular and hyaline casts, as before. This condition of the urine was of itself enough to excite apprehensions of trouble. On the day following the whole amount passed during the twenty-four hours was only seven ounces. The urine was dark-colored and acid, and of a specific gravity of 1·014, but contained only a trace of albumen. Still, the very marked reduction in quantity, with a specific gravity denoting deficiency in urea, certainly involved more or less danger. During the next day (which was yesterday), however, the quantity increased to twenty-two ounces in the twenty-four hours. To-day it is found that the urine has a specific gravity of 1·010 and contains albumen, but no casts. Between six o'clock last evening and eight o'clock this morning, a period of fourteen hours, the patient passed twenty-three ounces, and she may therefore be considered out of danger of any immediate recurrence of uræmic convulsions.

In several points of view this case must be regarded as one of great interest: in the first place, on account of the small amount of urine which she has been in the habit of passing, and the fact that, while urea has certainly been present in abnormal quantity in the system, there were no uræmic symptoms either before or after the occurrence of the convulsions, with the exception of those mentioned as appearing on the fourth day afterward. Neither do we find the minor indications of uræmic poisoning in the past history, such as headache, dizziness, impaired vision, nausea, and diarrhœa. This case shows, therefore, that, notwithstanding that the minor symptoms of uræmia are of great importance, instances may occur in which the graver manifestations of the condition may suddenly become developed without any premonition what ever. In one case that I now recall, the patient, who had previously been in good health, all at once fell into a state of profound coma, resembling that of apoplexy.

Again, it is interesting to note that, although these convulsive attacks have occasionally recurred for several years now, no œdema of any part of the body has at any time appeared as a result of the diseased condition to which they have been due. I have called especial attention to these negative points relating to uræmia in order to impress upon you the importance of making careful examinations of the urine in a considerable number of cases where the real pathological condition is very apt to be altogether overlooked. This case is also an instructive one inasmuch as it illustrates the advantages of ascertaining from time to time, from the quantity of urine passed and the specific gravity of the same, whether the patient is eliminating a sufficient amount of urea to insure immunity from the occurrence of convulsive paroxysms. To-day the infusion of digitalis has been discontinued (as it is apt to disorder the stomach when its use is maintained for any prolonged period), and mild diuretic remedies substituted for it. These are the bitartrate of potassa and sweet spirits of niter, and they will, no doubt, answer very well in the present improved condition of the patient.

We come next to inquire what variety of renal disease it is that has given rise to the trouble from which this patient has suffered. On account of the time that has elapsed since the first outbreak of uræmic symptoms, we may, in the first place, exclude acute nephritis at all events. What, then, is the chronic form here present? The history and symptoms do not correspond with those met with when we have the large white kidney (parenchymatous nephritis). With that condition are associated a large amount of albumen in the urine, very marked anæmia, and especially the existence of general dropsy. The fatty kidney we can hardly recognize by any distinctive signs, although it is apt to be associated with fatty liver; and, as many authorities do not recognize this as a distinctive form of Bright's disease, we may pass it by, and consider the diagnosis to lie between the waxy and the hard, contracted kidney. In regard to the former of these, it has been found that there are, as a rule, concomitant circumstances which render such a diagnosis probable. Thus we are liable to have this form when there is disease of the bones, syphilis, prolonged suppuration, or other wasting process present in the system. By a process of exclusion, therefore, we have arrived at the opinion that the pathological condition here is that known as the hard, contracted kidney. The symptomatic features of the case also are strongly in favor of such a supposition, and are, indeed, to a great extent, diagnostic of this form of renal disease. Thus, the disease seems to have been latent until all at once uræmic convulsions manifested themselves. Then there has been no dropsy whatever in any part of the body. General dropsy does not occur in this form of Bright's disease, although acute œdema of the lungs, which is of a different nature, is occasionally met with in it. The quantity of the albumen and the presence of abundant hyaline and granular casts also point to hard, contracted kidney, as does the low specific gravity of the urine.

The violent convulsive attacks which have occurred several times in the history of this case are probably to be explained as follows: Supervening upon the chronic condition of the kidney there has occurred every now and then an acute inflammation of the tubes, and this, in connection with the trouble previously existing, has had the effect of producing an explosion, so to speak, of uræmic symptoms.

PROBABLE CARCINOMA OF THE KIDNEY IN A CHILD.

This little fellow has been an inmate of the hospital for some time now, and I have been intending to bring him before you for the last two or three weeks; but have been prevented by the pressure of other cases. His name is James G——, and he is a native of Canada. He says he is fourteen years of age; but to look at him one would scarcely suppose that he was as old as that. Out of eight brothers and sisters, five died in early life. With the exception of the diseases incident to childhood, such as scarlet-fever and measles, he always enjoyed good health up to a year ago. There is a rather indefinite history of malarial fever at that time; but he seemed to get entirely over it, if that was the case. More recently, but several months ago now, he began to suffer from pain in the left side, and to lose strength and flesh. This continued up to the time he came here (the boy all the time growing more and more feeble), and on his admission it was ascertained that there was a tumor of considerable size in the left hypochondrium.

When we examine this to-day, we find that the mass is firm and tender to pressure, and that it moves with the acts of respiration. Abdominal tumors, I need hardly tell you, present some of the most difficult problems as to diagnosis that are met with in practical medicine. While in a certain proportion of instances the matter is clear enough, in not a few the diagnosis is very obscure. I would therefore recommend you to give a very reserved opinion in such cases, and especially when the test of an autopsy is likely to decide the matter. When I first made an examination in the present instance, I felt pretty sure of the diagnosis, and, what is more, that it was quite different from what I am now inclined to believe that it is.

In making the physical examination in a case like this, you will find palpation far more useful than percussion; for, notwithstanding the fact that I here distinctly feel, with my hand, the solid tumor in the left portion of the abdomen, when I make percussion over it I get quite a considerable amount of resonance, on account of the presence of the intestine overlying it. We are naturally led, in the first place, to suppose, from the position of the tumor and the more or less probable history of intermittent fever, that we have an enlarged spleen—or what is known as an ague-cake—to deal with. Let us see, then, if we can make out the hilus and the other portions of the outlines of that organ; and also whether it extends upward as well as downward. On resorting to careful palpation and percussion, we find that its border does not seem to correspond in shape to that of the spleen, and that, while it extends for many inches below the lower margin of the ribs, it does reach above that point. Of course it is a possible thing to have the spleen dislocated; but we should scarcely expect to find this in a boy of his years. It is more frequently met with in women after confinement than in any other class of patients. We decide, therefore, that the mass which we feel here is not the spleen: *First*, because it does not extend above the lower border of the ribs; and, *secondly*, from the singular character of its outlines.

Before leaving the supposition that it is an enlarged spleen, let us glance at the general symptoms, and the history of the case. As has been said, the account of malarial poisoning is rather indefinite, and we would first naturally associate enlarged spleen with that. This, however, being so doubtful, we next look to leucocythæmia for the explanation of the enlarged organ. Some of the symptoms tally very well with such an hypothesis; but, when we come to make a microscopical examination of the blood (as has been done here), we find no evidence whatever of there being such a condition present. Then, again, enlarged spleen of itself is not a dangerous affection; but in the present case we have the most marked constitutional disturbance, such as would come from pronounced anæmia and debility, and a depreciation of the health in general. If, then, it is not the spleen that is enlarged, it is altogether improbable that this tumor should be anything else than the left kidney. Such a marked increase in the size of the organ belongs only to malignant disease; and, as the cachexia here met with corresponds exactly with what we should naturally expect with such a condition, I think there can not be much doubt that this boy is suffering from carcinoma of the kidney. If there were hæmaturia present, I should regard the diagnosis as almost certain. The urine, I may say, is not discolored by blood, and is not albuminous, but contains crystals of oxalate of lime in considerable quantity.

PROBABLE THORACIC ANEURISM, COMPLICATED WITH PLEURITIC EFFUSION.

The patient that I shall next present affords a very good study for diagnosis, although I will say at the outset that I am not at present prepared to make a positive one. The man's name is Patrick H——. He is thirty-five years of age, a native of Ireland, and married, and was admitted to the hospital six weeks ago. His family history is indefinite. About eight years ago he had a fall from a height of ten feet, striking upon his left hip, and it was more than a week before he recovered from the effects of it. After that his health was good up to the commencement of his present illness, some eighteen months ago. At that time he began to have a more or less constant pain in the lower dorsal region, and sometimes he would suffer very severely from it. He was ordinarily worse at night, and he was not infrequently obliged to obtain temporary relief by means of the hypodermic use of morphia. About ten weeks ago he had to give up work altogether on account of the increasing severity of this pain. He says that it often shoots upward and outward, but never down the lower extremities. He is, as you observe, pale and thin, and his urine is found to contain albumen, pus, and oxalate of lime.

On making a physical examination of his thorax, we find that posteriorly there is a very considerable prominence to the left of the spinal column, which not only protrudes to a marked extent, but also occupies quite a large area of the surface of the back. It is found that this is resisting to the touch, and that, while above it is behind the ribs, below it projects beyond them. It also gives a distinct sense of fluctuation, and there is evidently an impulse over the portion where fluctuation is felt; although this is much less marked now than when I first made an examination of the patient two days ago. The stethoscope reveals a rather indistinct murmur over the same part; but I find that it can be heard better without this instrument than with it. The heart-sounds, as well, can be made out quite plainly over it. On percussion of the part, there is entire flatness everywhere.

We have here, then, an intra-thoracic tumor, apparently, which gives rise to a sense of fluctuation in one part, in which a murmur and the ordinary first and second sound of the heart can be heard, and which is characterized by an impulse, although there is no thrill. These are the united signs of an aneurism; and yet I do not say positively that it is an aneurism, for the reason that I prefer to err, if I must err, on the side of caution. When I first examined the patient, I found that the heart was somewhat raised and carried over to the right side; while everywhere below the level of the second rib there were flatness on percussion and absence of the respiratory murmur. There was the plain evidence of pleuritic effusion; and it occurred to me that it was probably a case of empyema. I remember one case in which this was present in a patient presenting most of the physical signs that this one does. When the chest-walls had been punctured and the pus all evacuated, the tumor altogether disappeared; after which the patient made a good recovery. It was with this idea that an exploratory puncture was made in the present case; but it was found that the liquid that escaped was not purulent, but of a sero-sanguinolent character. It was demonstrated, therefore, that we had not empyema to deal with. Still, although there was only a serous effusion present, I thought that a perforation of the chest-walls might possibly take place. I have seen one instance of that in this hospital, but it is such a very rare occurrence that it need hardly be taken into consideration.

The next day another exploratory puncture was made, but with the same result; and I then thought that it would be advisable to withdraw the greater quantity, if not all, of the liquid present. Accordingly this was done, fifty-eight ounces of bloody serum being removed. There was no difficulty in doing this, and it was ordered that the operation should be discontinued the moment that the patient began to cough or experience any suffering. He was indeed relieved to a very considerable extent by the removal of this pleuritic effusion, and the heart resumed its normal position ; but the tumor at the back portion of the thorax was found to remain the same as before. Before the evacuation of the liquid (which, by the way, was made the day before yesterday), I was able to get a distinct double pleuritis murmur, which was undoubtedly cardiac in character, since it corresponded in rhythm with the movements of the heart and not with those of respiration. After the effusion had thus been removed, we were able to detect an endocardial murmur, which previously could not be heard at all. When the stethoscope is applied to the epigastrium, a rough systolic murmur can be easily distinguished. Some of those who have practiced auscultation here think that they were able to make out a double murmur; but I must confess that personally I have not succeeded in doing this. A very important question in connection with this case is : May not the mass that is found to the left of the spinal column be a malignant tumor that has made its way posteriorly, and is in such relations to the aorta that the local signs belonging to the latter are propagated through it ? Or, again, may it not be a localized collection of pus holding the same relations ? The possibility of the existence of these two conditions it is which makes me express a certain amount of doubt as to its being a thoracic aneurism. At the same time I will say, however, that the probabilities seem all largely in favor of aneurism ; and, at all events, we will proceed practically upon this supposition by placing the patient on the systematic use of the iodide of potassium. I have recently had occasion, in connection with another case, to speak of the great service which this drug sometimes renders in this condition, and also to state that we are as yet ignorant as to the precise manner of its action in thus affording relief.

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Editorials.

THE STATE MEDICAL SOCIETY.

At the recent annual meeting of the Medical Society of the State of New York, many papers of interest and value were presented, and more or less adequately discussed. Many more were read by title only, as is usually the case. This matter of having papers read by title, and then turned over to the Committee of Publication, we look upon as to a certain extent an evil. Barring the confirmed tacticians, we take it that most of the delegates go to Albany with the expectation that their stay there will be of great profit to them by reason of the papers read and the discussions upon them. To our mind, the discussion is often the more valuable of the two, since it furnishes a ready-made digestive for the benefit of those who are not gifted with much power of analysis, and since it is apt to bring out matter that is not only corrective but supplementary, and thus prove of profit even to the learned and the critical. Moreover, it should in many instances aid the Committee of Publication in performing their part judiciously. Now, a paper read by title only is utterly barren from this point of view, and may, when it has slipped through the Committee's hands, exert no little influence in prompting a county society to rebel against that relic of the feudal system which says: "Order so many copies of our transactions, and pay for them, or your delegates can not take part in our proceedings."

The reading by title is not always the author's fault. He may be present at the meeting at great inconvenience to himself, and wait, and wait, and wait, listening to matters of purely routine business, to discussions of questions of ethics, and to the grinding of innumerable axes, until at length, unable to remain longer away from his work, he turns homeward, leaving his paper to be read by title. Naturally, his enthusiasm in regard to the Society wanes a little, and another year, should he attend further, he is not apt to waste his time in preparing a paper to be so disposed of. In some instances the Society is doubtless the gainer, for we all know that there are soporific qualities in certain papers. But even a dull paper is sometimes of use, if in no other way than as serving to fix its author's status. As a matter of course, there is a limit to the number of papers that can be read and discussed at reasonable length within a given period of time. We are convinced, however, that many more might be put through this course than is done at present, were it not for the great amount of time taken up in talking about matters of a purely business nature—matters which might for the most part be just as well disposed of, or at least matured, in committee. We are not acquainted with the details of Dr. Bulkley's plan for this purpose introduced at this meeting, but we are quite sure that no single step could be taken by the Society that would so surely lead to a more general interest in its sessions than some efficient action looking to this end.

THE AMERICAN MEDICAL ASSOCIATION.

On the strength of certain action taken by the Committee of Arrangements, we are beginning to have some faith that the coming meeting of the Association in New York will prove more satisfactory than have some of its past meetings. This action is a request to those intending to read papers at the meeting to furnish short abstracts of their papers to the secretaries of the proper sections several days in advance of the meeting, in order that the matter to be presented may be so arranged and sifted as to facilitate the transaction of business and prevent the reading of unworthy papers. The precise wording of the Committee's request will be found elsewhere in this number of the "Journal."

If the Committee had power to make their action mandatory; if, furthermore, they would exercise a remorseless censorship in this matter of scrutinizing papers; and if, finally, the other officers of the Association would coöperate in a plan to bring out the best work that the profession is capable of, to the utter exclusion of those wretched questions of ethics and discipline which have so often drowned the scientific proceedings—then we might confidently look forward to a session in every way worthy to be held up as an exponent of American medicine.

Reviews and Literary Notes.

A System of Medicine. Edited by J. Russell Reynolds, M. D., F. R. S., etc. With numerous additions and illustrations by Henry Hartshorne, A. M., M. D., etc. In three volumes. Vol. I. General Diseases and Diseases of the Nervous System. Philadelphia: Henry C. Lea, 1879. Pp. 1127.

Reynolds's "System of Medicine" is too well known to require critical review at this time. Probably no other work of similar scope has been so favorably received as this. It is one of the best for reference that we possess. Since its first publication such advance has been made in the science and art of medicine as to require a revised edition. Numerous additions have consequently been made upon very many of the subjects, and some changes in the classification of diseases. To this edition Dr. Hartshorne has made valuable contributions. The publisher has aimed to condense the five volumes of the English edition into three, and to accomplish this has arranged the pages in double columns, and has used small type. These are objections in a work of this kind, which is intended for reference. The volume is of convenient size. We regret that a better quality of paper has not been used.

The Theory and Practice of Medicine. By Frederick T. Roberts, M. D., B. Sc., F. R. C. P., etc. Third American, from the fourth London edition. With illustrations. Philadelphia: Lindsay & Blakiston, 1880. Pp. 1041.

This edition has been carefully revised by the author, with the endeavor to bring the information contained in it as nearly as possible up to the present date. The chapters relating to the absorbent system and to the nervous system have received special attention, and important additional matter has been introduced in connection with these subjects. The style is terse and laconic, the effort of the author having been, apparently, rather to emphasize salient points than to enter into the discussion of mooted questions. This peculiarity, while it simplifies matters for the student, will occasionally oblige the practitioner to look further for statistics on which to build a well-balanced prognosis. The chapter on the localization of nervous diseases is very clear and exhaustive without being long; it contains a great deal of useful information not to be found in any book written two years ago. The morbid anatomy of pachymeningitis—a subject treated of somewhat obscurely in many works on practice—is very simply and intelligibly described in a few lines. In his description of the symptomatology of locomotor ataxia, the author does not mention delayed sensation or the loss of tendon reflex; nor does he, in his remarks on cerebro-spinal sclerosis, call attention to the exaggeration of both tendon and cutaneous reflex which forms such a marked feature of that disease. On page 458, Part II., may be found the following: "The ophthalmoscopic signs of cerebral tumor are those of ischæmia, descending neuritis, or atrophy of the disk." This is vague and indefinite, in view of the fact that the existence of double optic neuritis is strongly indicative of cerebral tumor, it being present in ninety-three per cent. of all cases. The illustrations of tæniæ possess the exceptional merit of including the heads of the parasites—the part with the appearance of which it is most important that the practitioner should be familiar, but which, for some inscrutable reason, is generally left out of the picture. Physical diagnosis and the chemical and microscopical examination of urine receive more attention than is customary outside of special treatises. A short account of skin diseases closes the volume. The work is divided into two parts, representing the two volumes of former editions.

Outlines of the Practice of Medicine, with Special Reference to the Prognosis and Treatment of Disease. With appropriate Formulæ and Illustrations. By Samuel Fenwick, M. D., etc. Philadelphia: Lindsay & Blakiston, 1880. Pp. 387.

The author claims that in these days the student is well instructed in the course and symptoms of disease, but is not sufficiently acquainted with the remedies employed in the treatment. The object of this book is to supply such a deficiency. It is specially devoted to prognosis and treatment. Although containing little that is new or strikingly original, the volume abounds in practical suggestions in regard to diet, rest, position, and the use of drugs and other measures in the treatment of the particular diseases. Appended are a number of formulæ, to which frequent references are made in the text. It is printed on good paper, with large, clear type.

Pharmacographia. A History of the Principal Drugs of Vegetable Origin met with in Great Britain and British India. By Friedrich A. Flückiger, Phil. Dr., etc., and Daniel Hanbury, F. R. S., etc. Second edition. London: Macmillan & Co., 1879. Pp. xx.–803.

The remarkably cordial reception which the first edition of this great work met with, and of which it was in every way worthy, renders it unnecessary to give a lengthy notice of the new edition. To those who are unacquainted with the scope of the work, we may say that it is simply what its title indicates—a history of the drugs treated of; their botanical origin; an historical sketch of their employment in medicine; a description of their physical properties, microscopic structure, and chemical composition; an account of their relations to commerce, their adulterations, etc.; and brief reference to their uses in medicine. Its field being so different from that of the ordinary treatises on materia medica and therapeutics, it will doubtless be undervalued by the many who clamor to have our literature turned into a string of guide-boards; but, to those who prefer good training to the use of a go-cart, and who have the wisdom to see that their progress is powerfully aided by applying accessory knowledge, it will appeal as a most valuable storehouse of information.

Pathologie Clinique du Grand Sympathique. Étude basée sur l'Anatomie et la Physiologie. Par le Dr. A. Trumet de Fontarce, ancien interne des hôpitaux, etc. Paris: J. B. Baillière et Fils, 1880. Pp. 373.

There seems to be little need for a work on this subject at the present time, unless it contained original research or novel views, and candor compels us to state that this one does not, since the major portion of the book consists in quotations from and references to the leading French and German authors, passing mention only being given to the English and American. The diagnosis and treatment of such diseases as intermittent fever, cholera, etc., might well have been omitted without lessening the value of the treatise, for under those headings nothing is to be found which can not be better studied in any ordinary text-book on general medicine. The matter in the work might much better have appeared in some journal as a *résumé* of the contemporaneous literature of the sympathetic nervous system than in book form. To the general practitioner the book is of little value, but would be serviceable to the specialist who does not possess the better known works on this subject.

A Manual of the Practice of Surgery. By W. Fairlie Clarke, M. D., F. R. C. S., etc. Third edition; revised, enlarged, and illustrated by one hundred and ninety engravings on wood. New York: G. P. Putnam's Sons. 1880. Pp. 443.

The Same.—From the last London edition. Revised and edited, with additions, by an American surgeon. New York: William Wood & Co. 1879. Pp. xi.–316.

These two editions have appeared almost simultaneously in New York. The work is perhaps as complete a surgical manual as could well be devised without writing a systematic work, such as Gross's or Erichsen's, and it is one which, from its arrangement, condensation, and happy selection of what is of real importance, must appeal directly to the student fitting himself for final examination. The first twenty pages are devoted to hyperæmia, inflammation, and repair, and contain an astonishing amount of useful matter—as much, perhaps, as is usually given in that part of a course of lectures on surgery which is devoted to these subjects. After this, a few pages are allotted to tumors, illustrated by microscopic sections, and giving at a glance the differences between the benign, the sarcomatous, and the cancerous. Part II. deals with injuries, and treats of hæmorrhage and its control, gunshot and poisoned wounds, and the effects of heat and cold, with suspended animation. This is followed by a chapter on the constitutional effects of surgical diseases and injuries, such as shock, fever, pyæmia, and tetanus; and then we come to the main portion of the work, upon the diseases and injuries of various parts. Special subjects, such as the surgery of the eye and ear, are treated of as far as is necessary for the general practitioner.

The illustrations scattered through the text explain the different methods of bandaging, the appliances for fractures, etc., as well as the appearances caused by the various dislocations, and, as far as possible, the different diseases. A valuable list of formulæ closes the work, with directions for making poultices, etc., and the more common cooling drinks and nutritious preparations, such as beef-tea, chicken-broth, and the various soups and jellies—things that a young practitioner is fond of ordering in a matter-of-course way, but the making of which he sometimes finds it very annoying to be called upon to explain.

Altogether, we can say that we know of no better work than this in the same field. It is really a condensed surgery, and nothing of real importance seems to have been omitted. It is a safe guide to the student and a good hand-book for the general practitioner, where, at a glance, he can find about all that is absolutely known on any given point. For those who have never had a hospital training, it comes as near as any book can to supplying that want, furnishing, as it does, all the practical information on surgical details which are there learned almost unconsciously.

The original is so good that there would seem but little chance or revision with additions by an American surgeon, whose name is not given. The additions, however, are good, and "consist for the most part in descriptions of new methods of treatment, mostly Amercan, which have been practiced during the last few years." If the matter of Wood's edition be more complete, the advantages of style, press-work, and general appearance are all in favor of Putnams'; the work, however, is a good one to add to the "Library of Standard Medical Authors," and we can scarce expect very much in the way of elegance at the price at which those volumes are sold.

Clinical Lectures on the Diseases of Women, delivered in Saint Bartholomew's Hospital. By J. Matthews Duncan, M. D., LL. D., F. R. S. E., etc. London: J. & A. Churchill, 1879. Pp. vi.–215.

Dr. Duncan's writings are very widely known and very highly thought of in America. To those of our readers who have not seen these lectures, most of which have appeared in "The Medical Times and Gazette," we would say that they are in every way worthy of their author; indeed, we look upon them as among the most valuable of his contributions. They are all upon matters of great interest to the general practitioner. Some of them deal with subjects that are not, as a rule, adequately handled in the text-books; others of them, while bearing upon topics that are usually treated of at length in such works, yet bear such a stamp of individuality, and are so at variance (justly, we think) with the doctrines commonly taught, that, if widely read, as they certainly deserve to be, they can not fail to exert a wholesome restraint upon the undue eagerness with which many young physicians seem bent upon following the wild teachings which so infest the gynæcology of the present day.

One of the lectures is upon a purely obstetrical subject—abnormal pelvis. It contains the most sensible remarks on pelvimetry that we remember to have seen. The author deprecates the idea of any rivalry between version, craniotomy, and the forceps. Each has its appropriate sphere, and the choice between them should rest upon the actual state of things in any given case.

In the treatment of rebellious cases of chronic catarrh of the cervix uteri, sticks of zinc-alum are highly recommended. Generally, but one application is required. The subject of oöphoritis is very clearly treated of. We think, however, that Dr. Duncan underrates the difficulties that beset a physical examination of the ovary when healthy, or when its deviation from the normal state is not very marked. The lectures on perimetritis and parametritis seem to us more useful to the general practitioner than the author's monograph on those subjects. "Painful sitting" and "aching kidney" are among the more out-of-the-way topics treated of. We do not altogether like the phraseology of these titles, but that is a small matter. They cover many useful and suggestive hints.

In the lecture on "irritable bladder," the author says: "It is a very frequent thing to read of irritation of the bladder in these circumstances [extra-vesical pelvic disease] accounted for by pressure or by distortion. In regard to this . . . . my mind is not quite made up, but I am strongly of opinion that no change of position, no distortion, no pressure of an ordinary kind, causes irritation of the bladder"—an opinion which we most thoroughly endorse. Dr. Duncan thinks that the lesions which are sometimes the apparent cause of vaginismus are allied to eczema or to lupus. Their tendency to relapse is dwelt upon. Excision of the hymen and similar operative measures do not secure the results that have been expected of them.

In the lecture on spasmodic dysmenorrhœa, the "obstructive" or "mechanical" theory of dysmenorrhœa is energetically combated. Our space will not allow us to analyze the author's remarks on this subject. We can only say that, in our opinion, they are a step in the right direction. Mechanical treatment, however, especially dilatation with bougies, he commends as in the majority of cases very successful.

We regard the pathology of dysmenorrhœa as by no means a simple matter. It has never yet been handled in a comprehensive and altogether satisfactory manner. We must say, however, that the spasm theory, as understood by Duncan, seems to us to merit provisional acceptance as *a part* of the pathology of dysmenorrhœa.

In the lecture on cancer of the body of the uterus, the author alludes to a form of ulceration affecting the inner surface of the organ, mostly in women somewhat advanced in years, and often following a previous condition of villosity. It generally pursues a malignant course, with fœtid and hæmorrhagic discharge, but he is convinced that at a certain stage it is curable by cauterizing the interior of the uterus with nitrate of silver in solution.

In "uterine hæmatocele," which term he restricts to intra-peritoneal inclosed collections of blood, the blood generally, he thinks, flows back through the Fallopian tubes. We have failed to find that he makes any mention of Virchow's theory of hæmorrhage from newly-formed vessels in inflammatory exudations, which seems to us the most usual cause of hæmatocele. Sorbefacients are tabooed—somewhat too decidedly, we think; and the local measures calculated to hasten the disappearance of pelvic deposits in general are, in our opinion, very much underrated. Evacuation of the blood he thinks generally unnecessary, but does not see the objections to it that most gynæcologists entertain, and that, we confess, we entertain.

We would direct special attention to some very practical remarks on "fluctuation," in the lecture on parovarian dropsy.

The book is a very readable one throughout, and is of handsome appearance. It is dedicated to Dr. Fordyce Barker.

Minor Gynæcological Operations and Appliances. For the Use of Students. By J. Halliday Croom, M. B., M. R. C. P. E., F. R. C. S. E., etc. Edinburgh: E. & S. Livingstone, 1879. Pp. 106.

We can not commend this little work. Its teachings are almost all inadequate, being little more than one might look for in a table of contents; and some of them we can not but regard as calculated to lead the inexperienced to adopt too perturbative, and therefore harmful, methods of treatment. In our opinion, a syllabus is not a proper or safe thing to put into the hands of a student, even if its doctrines be unobjectionable.

The Riviera. Sketches of the Health Resorts of the North Mediterranean Coast of France and Italy, from Hyères to Spezia, with Chapters on the General Meteorology of the District, its Medical Aspect and Value, etc. By Edward J. Sparks, M. A., B. M. (Oxon.), etc. London: J. & A. Churchill, 1879. Pp. xii.–403.

To those who may wish to send patients to the winter resorts of France and Italy, and to the patients themselves, this book will prove valuable, as it contains a large amount of information in regard to the best routes, and as to the probable expense of a stay at most of the resorts. The author is singularly free from any prejudice in favor of one place over another. Valuable meteorological tables are given, but the statistics in regard to the cures of lung trouble appear to be no more reliable than such figures ordinarily are. There is nothing in the book which would lead one to send invalids to the Mediterranean rather than to our own winter resorts in the South and California. One point, which is too often overlooked, is insisted upon very strongly, and that is the importance of invalids remaining until late in the spring, and not returning before the weather at home is thoroughly settled.

History of Medicine in New Jersey, and of its Medical Men, from the Settlement of the Province to A. D. 1800. By Stephen Wickes, A. M., M. D., etc. Newark, N. J.: Martin R. Dennis & Co., 1879. Pp. vii.–449.

To a lover of old documents this handsomely printed volume will be a source of much pleasure. The first part, or history of medicine, deals with early literature, medical education, first medical societies, legislation, revenues of physicians, etc. Part II. is composed entirely of biographical sketches, interspersed with some very entertaining monumental inscriptions.

Transactions of the Medical Society of New Jersey, 1879. Newark, N. J.: L. F. Hardham, 1879. Pp. 333.

In this volume Dr. Hewlett, of Newark, gives the result of his study of the various cases in which chloroform is said to have been used for criminal purposes. The answer to the question "Can chloroform in vapor be administered to a person sleeping naturally, to the production of anæsthesia, without awakening him?" is in the affirmative; but it is stated that, to accomplish such anæsthesia, certain conditions are necessary, such as a susceptibility on the part of the one experimented on, peculiar skill in the administration, and a perfectly pure drug—conditions rarely united in a case of attempted criminal narcotism. Cases in which sleeping persons have been anæsthetized through the key-hole, etc., without their knowledge, by gradually displacing the air of the room with chloroform vapor, are considered as "highly imaginative"; and "the production of anæsthesia at once, by a handkerchief held near the mouth of waking persons, without their knowledge, is an utter impossibility."

Dr. Clendinen contributes a valuable "Résumé of Yellow Fever," and Dr. Mercer, an essay on "Congenital Phimosis." Among the reports of District Societies will be found many interesting cases and communications.

Transactions of the Medical Society of the State of Missouri at its Twenty-second Annual Session, held in Columbia, Mo., May 20 and 21, 1876. St. Louis: McCormick, Nixon & Co., 1879. Pp. 144.

The President of this society evidently does not look kindly upon Homœopathists, to whom he devotes a large part of his address; and he characterizes as "silly sentimentalism" the proposal that there should be "full fraternization with the liberal homœopathists, those who declare that they will not hereafter be bound by any exclusive dogma." The scientific articles are generally readable. Dr. A. J. Steele figures and describes a case of pseudo-hypertrophic paralysis; and Dr. Hughes presents a new æsthesiometer, the points of which are reversible, being blunt at one end for anæsthesia, and sharp at the other for analgesia. The instrument is fitted with a scale of distances and closes like a pocket-knife. The same author also contributes a clinical study of the value of absent tendon reflex, in which he comes to what we believe is already the established conclusion, that it is often of significance as an associated symptom of ataxia, but that it is sometimes observed in healthy states of the cord, and that hence we are not justified in regarding it as at all a certain sign. There are two articles on the eye, one by Dr. Michel, on purulent ophthalmia, and one by Dr. Dickinson, on mydriatics and myotics; and Dr. Todd contributes an essay on laryngeal growths.

Books and Pamphlets Received.—Lectures on the Diseases of the Nervous System. Delivered at La Salpêtrière. By J. M. Charcot, Professor to the Faculty of Medicine of Paris, etc. Translated from the second edition by George Sigerson, M. D., M. Ch., etc. With illustrations. Philadelphia: Henry C. Lea, 1879. Pp. xii.–271. ═══ A Treatise on the Science and Practice of Midwifery. By W. S. Playfair, M. D., F. R. C. P., etc. Third American edition, revised and corrected by the author. With notes and additions by Robert P. Harris, M. D. With two plates and one hundred and eighty-three illustrations. Philadelphia: Henry C. Lea, 1880. Pp. 655. ═══ A Practical Treatise on Urinary and Renal Diseases, including Urinary Deposits. Illustrated by numerous cases and engravings. By William Roberts, M. D., etc. Third American, from the third revised and enlarged English edition. Philadelphia: Henry C. Lea, 1879. Pp. xx.–631. ═══ Clinical Lectures on the Diseases of Women, delivered in Saint Bartholomew's Hospital. By J. Matthews Duncan, M. D., LL. D., F. R. S. E., etc. Philadelphia: Henry C. Lea, 1880. Pp. 175. ═══ The Student's Guide to Diseases of the Eye. By Edward Nettleship, F. R. C. S., etc. With eighty-nine illustrations. Philadelphia: Henry C. Lea, 1880. Pp. 370. ═══ Eyesight, Good and Bad. A Treatise on the Exercise and Preservation of Vision. By Robert Brudenell Carter, F. R. C. S., etc. With numerous illustrations. London: Macmillan & Co., 1880. Pp. viii.–265. [Price, $1.50.] ═══ On Loss of Weight, Blood-spitting, and Lung Disease. By Horace Dobell, M. D., etc. Second edition, revised, enlarged, and annotated, to which is now added Part VI., on the Functions and Disorders of the Liver. London: J. & A. Churchill, 1880. Pp. xii.–306. ═══ Pay Hospitals and Paying Wards throughout the World. Facts in Support of a Rearrangement of the English System of Medical Relief. By Henry C. Burdett, Honorary Secretary, etc. London: J. & A. Churchill, 1879. Pp. xiii.–176. ═══ Brain-work and Overwork. By Dr. H. C. Wood, Clinical Professor, etc. Philadelphia: Presley Blakiston, 1880. Pp. 126. [Price 50 cents.—American Health Primers.] ═══ On the Internal Use of Water for the Sick, and on Thirst. A clinical lecture at the Pennsylvania Hospital, October 25, 1879. By J. Forsyth Meigs, M. D., etc. Philadelphia: Lindsay & Blakiston, 1880. Pp. 54. [Price, 25 cents.] ═══ Paquelin's Thermo-cautery, with Wilson's Antithermic Shield, in Epithelioma of the Cervix Uteri. By H. P. C. Wilson, M. D., etc. Pp. 16. ═══ A Lecture Introductory to the Eighty-third Course of the N. H. Medical Institution, at Dartmouth College, July 31, 1879. By Oliver P. Hubbard, M. D., LL. D., etc. Concord: Evans, Sleeper & Evans, 1879. Pp. 36. ═══ Eighth Annual Report of the New York Free Dispensary for Sick Children. . . . for the year ending December 31, 1879. ═══ The Answer of the New York Neurological Society to the Document known as the Report of the Committee on Public Health relative to Lunatic Asylums, etc. New York: Trow, 1880. Pp. 49. ═══ Annals of the Anatomical and Surgical Society. Volume I., 1878–9. Brooklyn, N. Y.: Published for the Society, 28 Madison Street, 1879. Pp. xvi.–102. ═══ The Transactions of the American Medical Association. Vol. XXX. Philadelphia: Collins, Printer, 1879. Pp. 1028. ═══ Fourth Biennial Report of the Iowa

Hospital for the Insane at Independence, for the fiscal years of 1878 and 1879. Des Moines: F. M. Mills, State printer, 1879. Pp. 53. [From Dr. A. Reynolds.] ═══ Annual Report of the Supervising Surgeon-General of the Marine-Hospital Service of the United States, for the fiscal years 1878 and 1879. Washington: Government Printing Office, 1879. Pp. 176. ═══ The Great Hystero-Epileptic Attack and its Principal Varieties. By Alice M. Hart. Pp. 14. [An abstract of Richer's Étude descriptive de la grande attaque hystérique, etc.—Reprint.] ═══ Laryngeal Hæmorrhage. By J. H. Hartman, M. D., of Baltimore, Md. St. Louis: Geo. O. Rumbold & Co., 1879. Pp. 4. [Reprint.] ═══ On Port-wine-mark and its Obliteration without Scar. Fourth edition. By Balmanno Squire, M. B. (Lond.), etc. London: J. & A. Churchill, 1880. Pp. 24. [From the author.] ═══ On Rectal Alimentation and the Induction of Abortion for the Relief of the Obstinate Vomiting of Pregnancy. By William Warren Potter, M. D., Batavia, N. Y. New York: William Wood & Co., 1880. Pp. 16. [Reprint.—From the author.] ═══ A Point in Hospital Management, etc. By J. S. Prout, M. D., of Brooklyn, N. Y., etc. Pp. 4. [Reprint.] ═══ A Clinical Lecture upon the Operation for Inversion of the Lower Eyelid. By F. C. Hotz, M. D. Chicago: Bulletin Print, 1880. Pp. 11. [Reprint.] ═══ The Sanitation of Small Cities. Soil, Drainage, Sewerage, and the Disposal of Sewage. By David Prince, M. D. Pp. 8. [Reprint.] ═══ Valedictory Address to the Graduating Class of the Medical Department of the University of California. By W. F. McNutt, M. D., L. R. C. P. Ed., etc. Pp. 8. [Reprint.]

Clinical Reports.

MASSACHUSETTS GENERAL HOSPITAL, BOSTON.

Reported by J. Foster Bush, M. D.

FRACTURE OF THE HUMERUS.

(Service of Dr. HENRY J. BIGELOW.)

A man shackling cars was pinched between the buffers. He was brought directly to the hospital. Dr. Bigelow, in examining the case before the class, first asked, "where is the pain?" and, the patient referring it to the elbow, continued as follows. It is not necessary in every case of fracture of the arm to get crepitus—local pain and great tenderness being almost as good a guide. Let us examine this arm and elbow. First, the ulna. I pass my finger along its whole length, and I know it is sound because it is not tender upon pressure, as it would be if it were injured. Equally, there is no trouble with the olecranon, nor is there tenderness of the external condyle, as there would be if it were fractured. Placing the middle finger on the internal condyle, and the forefinger upon the tip of the olecranon, my first impression is that these points seem nearer together than is usual; a common sign of fracture of the former. But, to be sure of this fact, I compare this measurement with that of the sound side, which is found to be like it, and, as pressure does not produce pain there, fracture of the internal condyle is excluded. The head of the radius is felt to rotate, as it should, beneath the external condyle. Finally, general pressure on the articular surfaces neither produces pain nor causes displacement, so there is no fracture of the joint. This is corroborated by the fact that it has no abnormal thickness between my thumb and finger, from back to front. Gentle rotation of the forearm and pressure upon the shaft of the humerus an inch above the joint produce excessive pain. The diagnosis is, *fracture of the shaft of the humerus, near the elbow.* A wound is discovered above the external condyle, into which a probe passes upward and backward about an inch, raising the question, whether the wound connects with the fracture. The latter may perhaps be a "T" fracture into the joint, which would be a very serious injury if the opening communicated with it. We cannot tell whether it does or not. In order to guard as far as we can against the result of any such contingency, the wound will be injected with carbolized oil (one part of acid to fifteen of oil), and covered with a "Callender dressing," over which an internal angular splint will be applied. If a compound fracture had existed higher in the shaft, a "Lister dressing" would have been employed. But, as we like to see every day how much the elbow is swollen, the arm (with the splint to hold it) will be laid on a pillow, with the "Callender dressing" over the abrasion, and a dry, cold application over the otherwise uncovered joint. The pulse and temperature will be carefully noted. Their rise, a few days hence, would be strong evidence of abscess, when active measures may be needed. Their fall will be equal evidence that all is going on well. No interference will then be necessary, except a renewal of the "Callender dressing." [The wound ultimately proved not to communicate with the fracture.]

LITHOLAPAXY.

(Service of Dr. HENRY J. BIGELOW.)

During the last ten days Dr. Bigelow has performed the operation of litholapaxy twice; removing stones from middle-aged patients. The stones weighed between one hundred and fifty and two hundred grains, one being phosphatic, the other lithic. There was the usual rise of temperature in each case a day or two after the operation. The patients have since wholly recovered from their previous symptoms, and have been discharged. In commenting upon the operations, Dr. Bigelow said that his original instrument was really all that was needed to evacuate the stone. It consisted of a large catheter, a few inches of elastic tube entering the bulb at the top, with a glass receptacle at the bottom. There were no cocks, and he had made the joints as the chemists do, by thrusting the glass or metal into the rubber. With a like simple apparatus, Thomas Smith, of St. Bartholomew's, London, had lately removed, in a short time, upward of nineteen hundred grains of stone. The addition of stop-cocks enabled the operator to keep the bed dry when uncoupling. His present, modified apparatus the lecturer described as a central bulb, with a glass trap at the bottom. In the top of this bulb were two tubes, one going to the bladder, and the other to a neighboring vessel of water. The water contained in either could be quickly passed through the bulb to the other. There was great advantage, during evacuation, in frequently varying the amount of water in the bladder. More water was required at first, when there were many fragments. Afterward, when the operator was pursuing a single fragment or two, the less water there was the better. The limit in decreasing the water was announced by a frequent *thud* when the loose bladder-wall was drawn into the eye of the catheter. Just enough water should then be returned to the bladder to prevent this *thud.* If the vessel in which the elastic hose rested was a graduated glass, the exact amount of water in the bladder could be known at any moment. This was the only instrument yet devised to vary at once the amount of water in the bladder. No other apparatus would empty the bladder without uncoupling. If a little air were to get inside this instrument it would be caught in the bulb, whence it could not get to the bladder, but would be expelled into the water-vessel. I am sure, said the lecturer, that operators will prefer a short elastic tube between the catheter and the bulb, and I am equally sure that they will adopt a stand on which to rest the bulb. I find it convenient, in following the movements of the catheter, to raise and lower the bulb, as well as to move it from side to side. The stand I show you provides for both these motions. It has rings, like a chemist's retort-stand.

Proceedings of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

A stated meeting was held January 26, 1880, Dr. A. E. M. Purdy, President, in the chair.

Puerperal Malarial Fever.—Dr. Fordyce Barker read a paper with this title. The name had not entered the nomenclature of diseases, but it so well represented the phenomena of the disease to be described that he had adopted it for several years. The symptoms, the pathology, the differential diagnosis, and the treatment of the malady were presented, as he had studied them in seventeen cases which he had seen, fourteen in consultation, and three in his own practice. The disease, when typically developed, was characterized by a sudden onset, with a chill, high temperature, rapid pulse, profuse perspiration, and greater prostration than was usual at the beginning of any other disease occurring during the puerperal period. The invasion might occur as early as within the first twenty-four hours after delivery, or it might take place at any later period before the physiological changes which constitute puerperal convalescence were completed. After the explosion, there was a marked remission on the following day, but the alarming symptoms would return at the end of two or three days, yet usually were not so severe as at first. In the majority of cases, after the explosion, the remission was less marked, there were headache, backache, malaria, insomnia, loss of appetite, and a less elevation of temperature; the increased frequency of the pulse was less, but in general such cases were more persistent and did not respond readily to treatment. In septicæmia the fall in temperature might not be accompanied by a corresponding decline of the other symptoms, while in puerperal malarial fever it was always so attended; and pains in the head, back, and limbs were rarely present in septicæmia. Puerperal fever rarely developed later than the fifth day after delivery, and the chills belonging to it were not recurrent; and there was no marked remission of the symptoms. Puerperal malarial fever might come on during the progress of any of the local inflammations, or it might be complicated by them. The histories of three cases were related, which showed some of the more striking features of the disease. Secondary hæmorrhage after the twelfth day occurred in five cases, and in one case purpura was developed. In four cases the women were supposed to be suffering from puerperal mania. But one case terminated fatally, the patient dying on the forty-seventh day after her confinement. The author of the paper did not dwell upon the treatment, because the treatment of malarial fever was so well settled, and because every physician of intelligence and sound practical sense would appreciate the necessity for and the kind of auxiliary measures which the symptoms peculiar to each case might require. He preferred Warburg's tincture to quinine, because he had found it more effective and speedy in producing the desired results. His method of administration was to give half an ounce every four hours until the fever was completely subdued, and then continue it in gradually diminished doses until convalescence was established. The full dose was given at any time when there was the least indication of an exacerbation. The tolerance of quinine in these cases was very great, patients taking as many as 80 or 100 grains in twenty-four hours, without incurring cinchonism. As a rule, bromide of potassium was combined with the quinine, for the purpose of preventing disagreeable effects. ═══ Dr. W. H. HALL, with whom Dr. Barker had seen one case in consultation, referred to the fact that his patient took 150 grains of quinine in twenty-four hours, without suffering from cinchonism. He also referred to the good effect produced by the use of nitrite of amyl during the excessive prostration following the rigors. ═══ Dr. S. S. JONES referred to the fact that septicæmia might occur after the onset of malarial fever in the puerperal condition, and suggested that it might be the occasion of elevation of temperature, without remission, for several days, thus accounting for the fact that quinine did not produce its effect as quickly as it usually did in pure malarial fever. In the cases in which the fever did not subside promptly after the use of quinine, it had been his custom to cleanse the uterine cavity at once, and he had nearly demonstrated that the cleansing was the turning-point in saving the life of two or three women. The special point to which he directed attention was, that when the elevation of temperature persisted in spite of the use of quinine in full and repeated doses, although there might be no abdominal tenderness, and many of the other symptoms of septicæmia might be absent, we should cleanse the uterine cavity, and not take it for granted that it was not a case of septicæmia. ═══ Dr. W. T. Lusk had not seen the more severe manifestations of malarial poisoning in puerperal women as they appeared in the cases described by Dr. Barker, but within three months he had had three cases in which chill, high temperature, and profuse perspiration occurred shortly after confinement, and they had all yielded readily to quinine. He inclined to the opinion that some other poisoning than that by malaria was at the bottom of many of the severer cases, and he thought we should exercise great care in making a distinction between the poison that was capable of producing puerperal fever and that which produced puerperal malarial fever. ═══ Dr. W. R. Gillette remarked that it was difficult in some cases to distinguish puerperal fever from puerperal malarial fever; yet he thought the differential diagnosis could be made, and he relied chiefly on the facies of the patient, the character of the chills, the absence of pain, the range of the temperature and pulse, the purity of the lochial discharge, and the purely functional disturbance of the gastro-intestinal tract, there being no constipation and no marked loss of appetite, as they were seen in the former affection. ═══ Dr. T. A. Emmet referred to certain conditions of the womb which he had seen in women living in malarious districts, such as sub-involution, etc., which did not yield to any treatment except by quinine.

NEW YORK ACADEMY OF MEDICINE.

A stated meeting was held January 15, 1880, Fordyce Barker, M. D., LL. D., President, in the chair.

Pleurisy and Empyema, and their Treatment, in Children.—Dr. J. Lewis Smith read a paper, in which he maintained that primary pleurisy was not infrequent in young children, even in infants. He then referred to the diseases for which pleurisy was mistaken; to the fact that it occurred in a low proportion of cases in families as compared with public institutions, except when scarlet-fever was prevailing. Its most common *cause* was taking cold. It occurred most frequently among the poor in cities. Cachexia favored its development. It was rare in new-born infants, and in them its cause was not always apparent. Pleurisy following scarlet-fever was nearly always suppurative. It might occur as the result of disintegration of lung tissue from hypostatic congestion, or of pneumonia, with perforation of the lung and discharge of material into the pleural cavity, producing the suppurative variety. It might also occur in consequence of the rupture of small pulmonary abscesses, and their discharge into the pleural cavity. Traumatic pleurisy in children was rare. The *anatomical changes* were the same as occurred in inflammation of other serous surfaces. Special attention was directed to one point as bearing on the question of thoracentesis in empyema: draw a line from the axilla somewhat forward and downward, and that portion of the pleural cavity in front will be occupied by compressed lung, and that posterior to it by fluid. The needle should be introduced between the eighth and ninth ribs, a little in front of a perpendicular line falling through the angle of the scapula. He had seen four cases where general pericarditis occurred from extension of the inflammation from the pleura, and in one case local peritonitis from the same cause. In some cases the initial *symptoms* were obscure. Frequently the pain was ascribed to colic. The temperature might be low at first, but would soon rise to 102·3° F., or even higher; the fever was more persistent than in pneumonia, and the pulse remained frequent until convalescence was well established. Among the *physical signs* the following were noticeable: accelerated respiration; absence of bulging of the chest-walls, explained by atelectasis of the lung sufficient to give space for the fluid; dullness on percussion between the second and fourth days; respiration in most cases heard through the liquid; instead of absence of respiratory murmur, as in adults, a distant, finely vesicular murmur was sometimes heard, especially in children under three years of age. In *differential diagnosis* the crucial test was the introduction of the hypodermic needle, which would do no harm if the case proved to be one of pneumonia. The object of *treatment* was to reduce the inflammation and diminish the exudation. When the exudation was large, or the pleurisy secondary, loss of blood was injurious. Rarely, in primary pleurisy, was blood-letting advisable in a patient under six months of age, and, when used in children, should be by means of leeches only. Blisters in the early part of the disease increased the inflammation. The application of cold was not recommended. A cardiac sedative might be useful in the first stage, but not aconite. Quinine, to moderate the fever, and digitalis, to control the rapid action of the heart, were recommended. Opiates were useful in the first stage of the disease. In empyema, operative measures for removing the fluid were indicated, and such measures might or might not be resorted to when the exudation was sero-fibrinous. He had not known of marked benefit following the use of sudorifics. Digitalis was regarded as especially serviceable when the pleurisy was complicated with pericarditis, its action being tonic rather than diuretic. The diet should contain only a moderate quantity of liquid. Diuretics, such as the acetate and the iodide of potassium, and tonics, such as syrup of the iodide of iron, etc., were recommended. With reference to *thoracentesis*, the admission of air into a cavity containing sero-purulent fluid was followed by putrefactive changes. In addition to the rules given by Dr. Bowditch, of Boston, and by Anstie in Reynolds's "System of Medicine," he gave his own, which were: that he now invariably used a trocar and aspirator combined, never removing the fluid through a needle, because of its liability to injure the lung. When the fluid was sero-fibrinous, a single aspiration was usually sufficient. In empyema, a fistulous opening should be established, which was done by removing the pus, washing out the cavity once with carbolized water, 1–100, at the temperature of 100° F., and then introducing threads, which would maintain a fistulous opening. If the pus were fetid, the cavity might be washed out every second day. Washing out interfered, however, with Nature's method of effecting a cure.

In the discussion, Dr. F. P. Kinnicutt referred to the fine, crepitant character of the friction sound, instead of the harsh sound heard in adults, differing from that heard in pneumonia only in that it was less fine and more superficial. He thought the intercostal nerves were affected, and that the pain was referred to their extremities, i. e., to the abdominal region.

Dr. A. C. Post favored free incision through the chest wall in cases of purulent collection in the pleural cavity, because it frequently was the case that the cavity could not be completely emptied by the largest aspirator needle. It was especially desirable in children suffering from empyema.

At the close of the discussion, the President referred to the fact that, after the exercises on the occasion of the opening of Library Hall, he had invited those present to adjourn to the rooms below, and partake of the "loving-cup," which was made of glass, and not of the material generally used in such ceremonials. He would now ask Dr. Thomas to read a letter from Mrs. John Jacob Astor, which accompanied a superb "loving-cup" made of silver and lined with gold, suitably embellished, and handsomely engraved with the motto—"May peace and love be multiplied unto us." ═══ Dr. Lewis A. Sayre introduced appropriate resolutions, tendering the thanks of the Academy to the generous donor. ═══ Dr. T. Gaillard Thomas seconded the resolution, with fervent remarks, and the Academy adopted them with a good will.

A stated meeting was held February 5, 1880, Fordyce Barker, M. D., LL. D., President, in the chair.

Post-partum Hæmorrhage.—Dr. I. E. Taylor read a paper on "Flagellation, or Spanking of the Child's Back previous to its Entire Delivery, as a Means of preventing Uterine Hæmorrhage; and Flagellation of the Abdomen of the Woman after Delivery of the Placenta, as a Substitute for the Introduction of the Hand into the Cavity of the Uterus," in which he referred to the function of the uterus, the normal relation of its blood-vessels to the general circulation, the suddenness with which post-partum hæmorrhages sometimes occurred, and the imperative necessity of using efficient measures promptly, in order to secure immediate contraction of the uterus. The method which he offered was simple and efficient, yielded results promptly, was always at our command, and was available in controlling hæmorrhage, not only after the delivery of the child, but also before and after the delivery of the placenta. It consisted, first, in flagellating or spanking the child's back moderately, rapidly, and repeatedly, after the delivery of the shoulders, permitting the breech and the extremities to remain in the vagina, and the feet in apposition with, or within, the cervix uteri—allowing them to remain there for twenty minutes or more, if necessary. Pressure over the uterine tumor should be avoided, for it might cause the expulsion of the child before the desired object had been accomplished, viz.: firm contraction of the uterus. The spanking, with light, quick blows, should be kept up until the delivery of the child was completed. Pressure over the uterus should be made as soon as it was determined to complete the delivery of the child. After the placenta was delivered, if hæmorrhage occurred, we should expose the abdomen and flagellate it with a towel doubled—the doubled end being wet with cold water—the strokes being powerful and quickly repeated. The measure was limited to the treatment of *primary* hæmorrhage. It was adapted to three classes of cases: 1. Those in which the uterus was large, soft, and flabby, so as scarcely to be recognized by touch; 2. Those in which the uterus was distended with blood; and 3. That class in which the hæmorrhage occurred in connection with alternate contraction and relaxation of the uterus. Great care should be exercised in introducing the hand into the cavity of the uterus for the purpose of removing the placenta and arresting uterine hæmorrhage, lest the gravity of the complication be increased rather than diminished. He had, in a large obstetric practice, introduced the hand into the uterus for that purpose but three times in thirty-five years. All authorities agreed that it was only when the os was contracted, or manifested a disposition to contract, that the introduction of the hand was efficacious. He then gave the *modus operandi* of his measure, referred to the use of several other agents, such as electricity, hot and cold water, etc., and then cited a number of cases in which flagellation both of the child and of the mother's abdomen had been especially serviceable. He also spoke of the use of anæsthetics, and objected to administering them at the close of any case of labor. The administration of an anæsthetic, in cases where uterine contraction was feeble from prolonged effort, usually stimulated the uterus, and sometimes sufficiently to enable it to complete the labor without the aid of art. ——— THE PRESIDENT referred to the scientific interest and the originality of the suggestion contained in the paper, and also mentioned flagellation as a therapeutical resource frequently resorted to in Eastern countries. As a therapeutical agent to be used for the good of the child it had long been recognized, for Solomon says: "He that spareth his rod hateth his son; but he that loveth him chasteneth him betimes." ——— Dr. W. R. GILLETTE thought that flagellating the child before complete delivery must necessarily have a rather limited application. He had never attempted to retard birth in the manner described, but he thought that, if under any circumstances it could be made available, the number of cases must be very limited. It had not been his experience to see uterine hæmorrhage occurring in consecutive labors, and he thought we should not assume that hæmorrhage would occur again because it had occurred in even two or three previous confinements. ——— Dr. M. A. PALLEN would divide uterine hæmorrhages into those from faulty implantation of the placenta, from partial separation of the placenta, from laceration of the vulva, fourchette, perinæum, or cervix uteri, from inertia of the uterus, and from systemic causes, such as renal or hepatic disease, etc. He was of the opinion that, just in proportion as the placenta was implanted to one or the other side of the fundus, did prolonged labor occur, and just in proportion to the occurrence of prolonged labor was the woman prone to have post-partum hæmorrhage. For cases of hæmorrhage dependent upon complete uterine inertia, nitrite of amyl was the best remedy that could be employed. For hæmorrhage after retained placenta, injections of iodine or iron would be most serviceable. In cases in which the body of the uterus was contracted and hæmorrhage continued, we should make an examination of the vulva, and, finding no blood coming from the fourchette, perinæum, etc., we should examine the cervix, and, finding it torn, we should check the hæmorrhage by means of styptic cotton held in position by means of a light tampon. This was the only form of post-partum hæmorrhage in which a tampon was allowable, and it should be removed within thirty-six or forty-eight hours, and the parts thoroughly irrigated with carbolized water. He had seen cases in which it was necessary to put in a stitch to arrest hæmorrhage from the cervix after parturition. Hæmorrhage dependent upon œdema of uterine tissue, such as was sometimes seen in connection with albuminuria, might prove fatal despite any measures. Recurrent hæmorrhage, at consecutive confinements, he thought, usually depended upon laceration.

NEW YORK PATHOLOGICAL SOCIETY.

THE annual meeting was held January 14, 1880, Dr. E. L. KEYES, President, in the chair.

ATROPHY OF CEREBELLUM.—Dr. G. L. PEABODY presented specimens removed from the body of an Italian boy who had fallen from the yard-arm of a vessel, fracturing his thigh, and had died in consequence of the injury. At the autopsy, there was found congenital atrophy of more than one half of the left lobe of the cerebellum. The space which should have been taken up by the missing substance was occupied partly by the overlapping of the opposite lobe of the cerebellum, partly by the occipital lobe of the cerebrum, and partly by an accumulation of serous fluid at the base of the brain. There was nothing in the history of the case which had any bearing upon the condition found in the cranial cavity. ═══ Dr. E. C. SEGUIN remarked that we had no right to expect symptoms from destruction or disease of even one half of the cerebellum. ═══ Dr. E. G. JANEWAY thought the condition was probably congenital.

INTRA-OCULAR SARCOMA.—Dr. H. KNAPP presented two specimens. The *first specimen* had been removed from a woman thirty years of age, and, when she was first seen, sarcoma, originating in the ciliary region, was readily diagnosticated, and from its brownish color it was regarded as of the melanotic variety. There was no inflammation or abnormal tension, but nevertheless the retina was detached. The eye was removed. The *second specimen* had a more interesting clinical history. A man, forty years of age, a painter on gold groundwork, an employment exceedingly trying to the eyes, had had perfect sight one year ago. In August last, he began to suffer from fatigue in one eye, and soon began to see sparks of various colors, and to shrink from the light, and he noticed that objects were diminished in size—in other words, he had micropsia. When the eye was first examined, an extensive detachment of the retina was discovered, and yet there was no symptom of irritation or increased tension, the pupil was normal, and no reason was found why the retina should be detached. Six weeks later, the patient came again, saying that he had had pain in the affected eye for two days. The eye was red, ecchymosed, and distinctly hard; the iris was discolored, and, after dilatation, the eye was examined, and a lump of about the size of a small pea, of a brownish color, was discovered, with the retina stretched over it. The diagnosis was, melano-sarcoma detaching the retina, and the eye was removed. Dr. Knapp remarked that it was not common to see detachment of the retina with intra-ocular tumor so early as was formerly believed to be the case. He thought that the tumor in this instance had attained a considerable size before the retina was detached, and that it produced no visual symptoms because it was in the ciliary body, producing only such symptoms as had been mentioned, micropsia being the most prominent. He thought that, notwithstanding all the procedures that had been recommended, the diagnosis of ciliary tumor would remain doubtful until it had reached a certain size. ═══ Dr. SEGUIN asked Dr. Knapp how he would explain micropsia occurring, especially, in neurotic females who declared that the same objects at one time looked large and at other times small to them. ═══ Dr. KNAPP replied that, in those cases, there was probably some anomaly in accommodation.

The Society then proceeded to the election of officers, with the following result: For President, Dr. THOMAS E. SATTERTHWAITE; for Vice-President, Dr. GEORGE L. PEABODY; for Secretary, Dr. GEORGE F. SHRADY; for Treasurer, Dr. JOHN H. HINTON; and for Editor of the Transactions of the Society, Dr. JOHN C. PETERS.

A stated meeting was held January 28, 1880, Dr. T. E. SATTERTHWAITE, President, in the chair.

PROSTATIC DIVERTICULUM.—Dr. J. W. HOWE presented the genito-urinary organs of a man, illustrating chronic cystitis, with what he regarded as a congenital pocket or prostatic sinus, which contained sufficient material to prevent the operation of external urethrotomy and dilatation of the neck of the bladder from affording the usual amount of relief. ═══ THE PRESIDENT suggested that the abscesses in the perinæum were the result of the tuberculous dyscrasia, inasmuch as there was a deposit both in the bones and in the lungs. He had seen a somewhat similar case of hypertrophy of the walls of the bladder due to stricture, and in that case the prostate was the seat of a number of openings running backward into the cellular tissue about the bladder. It was an old case of stricture, in which external urethrotomy was performed. The patient died in consequence of the bursting into the peritonæum of an abscess that had formed in the wall of the bladder. The abscess was supposed to have been due to the operation. ═══ Dr. Howe said that, as no pus escaped when the external opening was made, he could not see that there was any evidence of prostatic abscess. No relief had followed his operation until the bladder and the pocket were thoroughly syringed out, as after cystotomy.

Intra- and Extra-ocular Sarcomata.—Dr. C. S. Bull presented an eye containing an intra-ocular tumor, and stated that an extra-ocular growth was also found when the eye was enucleated. A woman, twenty-six years old, on the second day after her confinement suddenly became blind in her left eye. No previous defect in vision had been noticed. Four months afterward she had severe pain radiating over the forehead and along the ramus of the lower jaw, which gradually increased in severity. When he first saw the patient, there was slight exophthalmos, the cornea was perfectly clear, there was no anterior chamber, the pupil was dilated, the iris was lying in contact with the cornea, with its free margin turned backward, and the lens was lying in contact with the iris. A diagnosis of sarcoma of the choroid was made. When the eye was enucleated, an extra-ocular tumor was found, that seemed to extend in the direction of the optic nerve. On opening the eye in the equatorial region, the intra-ocular tumor was found to have its origin in the *posterior* segment of the eyeball, pushing the retina before it (hence the complete blindness), and growing backward and following the optic nerve as far as could be seen. The patient was still living. The extra-ocular tumor was an ordinary white, round-cell sarcoma, and involved not only the sheath but the tissue of the optic nerve.

Fracture of Vertebræ.—Dr. G. L. Peabody presented, for a candidate, a specimen of fracture of a number of cervical vertebræ. The injury occurred in consequence of the young man striking bottom while diving.

Anchylosis of Vertebræ.—Dr. Peabody also presented a specimen illustrating complete bony anchylosis between the second and third cervical vertebræ. The man was between forty and fifty years of age, and the union was complete between the bodies, the laminæ, and the spinous processes.

Gall-Stones.—Dr. M. P. Jacobi presented the gall-bladder, containing calculi, and the pyloric extremity of the stomach, removed from the body of a woman who three years ago had had her first attack of severe colic, the pain being situated in the right hypochondrium, and lasting about twenty minutes. The colic returned on alternate nights for about one week, and at the end of that time there was considerable tenderness upon pressure over the point where the pain had existed, but there was no jaundice. She then remained free from colic for two years and a half, when slight pain was felt at times about half an hour after eating, and, after the last paroxysm, for two or three days there was a good deal of tenderness, limited tolerably well to the region of the gall-bladder. There was no enlargement of the liver. The pain ceased immediately upon vomiting, and for the attacks latterly an emetic was commonly taken. At the autopsy, the gall-bladder was found adherent throughout its fossa; its mucous membrane was reddened; it contained no bile, but it was filled with a mass of small stones, varying in size from that of a pin-head to that of a cherry-stone, and a large one, three quarters of an inch in diameter, was lying immediately over the cystic duct. The cystic and the hepatic ducts were pervious, and were not enlarged. The mucous membrane of the pylorus was reddened. It was thought that the colic depended entirely upon spasmodic contraction of the gall-bladder.

Extirpation of Larynx.—Dr. F. Lange presented a larynx removed from a man seventy years of age, and exhibited photographs of the apparatus used for phonation and to assist in taking food.

Thrombus of Aorta.—Dr. F. Delafield presented a thrombus of the aorta that had caused death by its presence. It was situated just above the valves, and was large enough to fill the vessel. The valves were normal. The aorta, in its entire length, was in a condition of advanced atheroma, and its inner surface was rough.

Multiple Neuromata.—The President presented a specimen of multiple neuromata from a case in which the tumors had grown upon nearly all the nerves of the body, both spinal and cranial. It was from the body of a man, twenty-five years old, who had given no history of syphilis, and whose symptoms had been comparatively slight. None of the nerves were flattened ; in some places they passed through, and in others on the outside of, the tumors, which for the most part consisted of a fibrous infiltration of the nerve-bundles, taking the shape of fusiform masses. On the anterior crural nerve and its branches two hundred and seventy-six tumors had been counted. ═══ Dr. M. P. Jacobi referred to an illustration of a similar specimen in Follin and Duplay's "Anatomy," and the description there given was, that these tumors consisted of an hyperplasia of the neurilemma, the nerve-fibers simply being spread out. ═══ The President was inclined to regard them as fibromata of the nerves. ═══ Dr. Delafield remarked that it was exceedingly difficult to say how much in such tumors was new connective tissue and how much a new growth of nerve-fibers.

NEW YORK OBSTETRICAL SOCIETY.

A stated meeting was held January 20, 1880, Dr. W. T. Lusk, President, in the chair.

The Pathologist reported that the tumor presented by Dr. C. C. Lee December 16, 1879, was a myo-fibroma.

Modified Nélaton's Forceps.—Dr. J. B. Hunter exhibited a modified Nélaton's forceps, the modification consisting of a space for the introduction and holding of a trocar, thus avoiding the necessity of a second assistant to hold the trocar during manipulation.

Spina Bifida.—Dr. J. E. Blake exhibited a cast of a spina bifida, taken four months after birth. The child was now eight years old, and was strong and vigorous, although unable to walk. The treatment adopted was graduated pressure upon the sac, protecting it so that it could not be subjected to sudden compression, which might produce dangerous displacement of the cerebro-spinal fluid. A curious feature in the case was the fact that the sensibility, motor power, and circulation in the lower extremities varied from time to time, as tested by electricity, and this was probably due to variations in pressure upon the nerves by the fluid. He also spoke doubtingly of the success reported by Dr. Morton in his book on spina bifida. ═══ Dr. A. Jacobi remarked that the only new thing regarding Dr. Morton's cases was the large number of successes—more recoveries having been reported by him than had been seen by any twenty surgeons —and he should be slow in accepting them as conclusive. The only treatment he could recommend in children was that adopted by Dr. Blake, and when that failed, so far as we yet knew, not much could be done. With reference to Dr. Blake's experiments with electricity, he suggested that it was not a reliable test, for the reason that the same effect was not always produced upon the same surface of healthy skin, the variation being due to some such circumstances as different conditions of the electrodes or the greater or less moisture of the skin itself. He thought iodine injections might be used with much greater prospect of success in hydrocephalus than in spina bifida.

Cancer of the Ovary, etc.—The President presented the genital organs removed from the body of a woman fifty years of age, who had died of general carcinosis involving the intestines, the mesentery, and the ovaries. Three years ago she complained to him of backache, said she had suffered for several years from profuse uterine hæmorrhages, and further stated that she had been under the charge of many physicians for nearly twelve years, all of whom had said that she had fibrous tumor of the uterus. A nodular tumor was found filling the pelvic cavity behind the uterus, and he succeeded in pushing it forward, and in adjusting a short, broad pessary, which supported the mass and afforded her great relief for about two years, when it could no longer be worn on account of the pain it produced. On examination then, it was found that the mass was firmly fixed in the pelvis, and was tender. Supposing that peritonitis existed, rest in bed was advised. Soon after, ascites was developed, but was relieved, and a mass was then felt in the left side of the abdominal cavity, suggesting the existence of cancer. At the autopsy the intestines were found studded with cancerous nodules, also the mesentery; the uterus presented simply the appearance of the organ after the final cessation of menstruation, and the ovaries had not been found, but probably had become cancerous. ═══ Dr. Jacobi thought that the primary lesion was probably in the ovaries, because there were no nodules in the liver. The tumor in the pelvis could not have been carcinoma from the beginning, however, because it was of too long standing. The carcinoma probably dated from the time when she was unable to wear the pessary. ═══ Dr. Byrne thought that originally there might have been a fibroid, and that subsequently the surrounding mass, including the ovary, underwent cancerous degeneration.

Imperforate Hymen.—Dr. C. S. Ward reported a case of retained menstrual fluid which he had seen in consultation, and in which the fluid, amounting to three and a quarter pounds, was removed rapidly by a free incision through an obturator hymen. The patient did perfectly well after the operation. ═══ Considerable discussion as to the advisability of sudden and of gradual removal of the fluid in these cases then followed, and the dangers said to attach to the sudden evacuation were discussed, including rupture of the Fallopian tube, regurgitation of the fluid through the tube, and a tendency to sepsis and to inflammation. ═══ Dr. T. A. Emmet knew of no case on record in which regurgitation through the Fallopian tubes had occurred, and favored rapid evacuation and insuring prompt contraction of the uterus. ═══ Dr. Mundé and Dr. Gillette favored gradual evacuation. ═══ Dr. A. J. C. Skene believed that the chief danger was from inflammation subsequent to the operation, which was dangerous in whichever way it might be done. ═══ Dr. G. T. Harrison thought the chief danger was from rupture of the Fallopian tubes and consequent peritonitis, and that the liability to this accident was greater when the obstruction was situated at the internal os than when caused by an imperforate hymen. ═══ Dr. F. P. Foster suggested that fluid might be forced through the tubes when the vagina contracted actively, as in Dr. Ward's case, and the opening in the hymen was not large enough to allow the fluid to escape freely. He also thought it possible that adhesions, if they existed, might be stretched or torn when a uterus, long distended, came to contract, whether emptied gradually or suddenly, and thus give rise to trouble.

THE QUESTION OF ASPIRATION IN PELVIC EXUDATIONS.—Dr. T. A. EMMET reported a case in which there was a mass of inflammatory deposit on the right side of the pelvic cavity, of the size of a large hen's egg. There was no constitutional disturbance; the patient was perfectly comfortable when in bed, but there had been no change in the condition of the mass for two weeks, and the question of aspirating it had been raised. There was no fluctuation. In all the cases in which he had used the aspirator, cellulitis had followed the operation. ═══ Dr. MUNDÉ referred to two cases in which he had removed by the aspirator, from masses of deposit without fluctuation, three ounces of bloody serum and two ounces of fetid pus respectively. The operations were not attended by unfavorable symptoms, and good results had followed. In a third case, two ounces of dark-colored offensive pus were withdrawn. No reaction followed, but the result had not been determined. ═══ Dr. R. WATTS referred to two cases in which he had unsuccessfully used the aspirator, but in which no ill effect had followed the operation, and the patient had finally recovered. ═══ THE PRESIDENT said that he had aspirated such inflammatory deposits in the pelvis very many times, and in a majority of cases no advantage had followed; benefit was obtained only when the needle had accidentally encountered pus. He had not seen it follow the removal of a small quantity of serum.

A STATED meeting was held February 3, 1880, Dr. W. T. LUSK, President, in the chair.

Dr. BYRNE said that he did not wish to be understood as having said, at the last meeting, that a true uterine fibroid was likely to undergo cancerous degeneration, but that tumors, decidedly fibrous in character, situated posteriorly and outside of the uterus, might become infiltrated with cancerous material. ═══ THE PRESIDENT asked if epithelial cancer was ever developed *primarily* in tissues which did not possess epithelial cells. He had no doubt that a uterine fibroid might undergo sarcomatous degeneration, but perhaps not cancerous.

ELEPHANTIASIS OF THE LABIUM.—Dr. F. P. FOSTER presented a tumor of this sort weighing 1,300 grammes, which was of interest simply from the fact that in its removal the attempt had been made to carry out a plan that had lately been recommended by Schröder, avoiding the use of ligatures, which interfere with primary union. Schröder's method consisted in using deep sutures as the incisions progressed, before the complete removal of the mass was effected. In this instance, however, it had been found impracticable to lift the tumor sufficiently out of the way during the progress of the incision, and he had therefore been obliged to remove the mass as rapidly as possible, and then secure the blood-vessels in the usual manner. There was considerable hæmorrhage, and it was necessary to tie some twelve or fifteen arteries. The wound was five or six inches long. Primary union failed to take place, and the wound was reopened on the second day. ═══ Dr. J. BYRNE thought the galvanic cautery was the means for removal which should be adopted in such cases.

HEPATIC ABSCESS SECONDARY TO SEPTICÆMIA; ASPIRATION OF ABSCESS; DEATH.—Dr. C. C. LEE presented a liver removed from the body of a woman, thirty-eight years of age, who had come under his care in the Woman's Hospital in October, 1879. Six months previous to her admission she had felt something give way in the right side of the abdomen, low down, while lifting a tub of water, and was at once seized with pain. She was then confined to her bed for two months with what was called inflammation of the bowels. In June, 1879, Dr. H. T.

Hanks saw the patient, and diagnosticated probable pelvic abscess and the remains of an old pelvic peritonitis. In October, Dr. Lee saw the case with Dr. Hanks, and, as Dr. Hanks had done, discovered diffuse cellulitis, and he also thought that there was probably a pelvic abscess, but they could not make out its precise situation. In that condition she was admitted to the hospital. She improved somewhat, but in November she began to show slight symptoms of septicæmia, and the abdomen was somewhat tender. The pelvic cavity was now filled with an indurated mass. Early in January, 1880, pleurisy upon the right side developed, and when that was subsiding it was found that the area of hepatic dullness had reached down to about one inch below the umbilicus, and two inches to the left of the median line. He thought he detected fluctuation, and resolved to introduce a needle into the pleural cavity, and, if necessary, into the right lobe of the liver. The pleural cavity was found empty, but from the liver pus was obtained. Eleven ounces of thick pus were subsequently removed, but, although the urgent symptoms were somewhat relieved, the patient slowly sank, and died on the 30th of January. A large abscess was found in the right lobe of the liver. It had been carefully examined, and a *pyogenic membrane* had been distinctly made out, contrary to the claims of some who had written upon the subject of hepatic abscess. There was a pelvic abscess, so situated behind the peritonæum that it could not be felt through either the vagina, the rectum, or the abdominal wall. There was also an abscess in the psoas muscle. ═══ Dr. Byrne thought that an early evacuation of the pelvic abscess, long before the case came under Dr. Lee's observation, might have saved the patient from the condition that ultimately existed. ═══ The President regarded the termination of the case as a very rare one. ═══ Dr. Byrne remarked that he had seen secondary abscess as far distant as the psoas muscle from the original point of pelvic inflammation. ═══ Dr. Lee thought that the symptoms of pelvic abscess had not been sufficient to justify puncture. The post-mortem confirmed the diagnosis in all particulars, but revealed also a psoas abscess, which had not been suspected. ═══ Dr. Chamberlain remarked that he had in two cases attempted to diagnosticate pelvic abscess by means of a fine exploring needle, but was unsuccessful, although the existence of abscess was subsequently proved.

Pelvic Deposits and Aspiration.—Dr. P. F. Mundé reported a case in which he had aspirated a pelvic deposit, since the last meeting, and had obtained half an ounce of pus. He was unable to remove any more pus, although the needle was introduced several times. The aspiration was first performed with a large aspirator needle, but, this becoming clogged, a long, slender needle attached to an hypodermic syringe was introduced four times at different points, with drawing creamy pus at each puncture. No reaction whatever followed this operation; but the abscess seemed now to be refilling, and would probably require a repetition of the aspiration. ═══ Dr. C. S. Ward thought that the use of the bistoury in such cases was justifiable. ═══ Dr. Mundé feared the use of the knife because of the nearness of important arteries. ═══ Dr. Pallen referred to a case in which, placing the patient in the knee-elbow posture, and ballooning the vagina, he had cut through the vaginal wall with scissors, insinuated the finger between the rectum and the uterus, and given vent to about one pint of pus. The patient recovered. ═══ Dr. Mundé remarked that he had always supposed that plastic exudations on either side of the uterus were commonly, if not always, in the cellular tissue of the broad ligaments, until he saw a statement made by Tarnier that there was no cellular tissue in the broad ligaments. He thought, however, that Tarnier was mistaken. ═══ The President was of the same opinion. ═══ Dr. Byrne remarked that several years ago he had made some experiments on the cadaver with reference to the pathology of retro-uterine hæmatocele, and had found that, when an opening was made into any part of the broad ligament, and the nozzle of a syringe introduced between the two layers, fluids could be injected so as to separate the folds of the ligament with great ease; that the whole retro-uterine space could be filled with fluid; and that even the opposite side and the entire pelvic cavity could be filled from the same opening, when the injection was continued. These investigations were undertaken with a view of testing the correctness of certain opinions and conclusions arrived at by Bernutz and other French authorities touching the relative frequency of the *intra-* and *sub*-peritoneal varieties of bloody extravasations. He had then no doubt, nor had he now, as to the existence of cellular tissue in this locality, and from this fact mainly he endeavored to prove that intra-peritoneal effusions were not so frequently to be met with as had been supposed, and that we might and often did meet with retro-uterine bloody tumors *outside* and *beneath* Douglas's pouch.

Anteversion Pessary.—Dr. Gehrung, of St. Louis, on invitation by the President, exhibited and described an anteversion pessary which acted upon the same principle as retro-uterine instruments, and which had also proved efficient in the treatment of cystocele.

Extra-Uterine Pregnancy.—Dr. M. A. Pallen reported a case of abdominal pregnancy, with remarks concerning the etiology of extra-uterine fœtation.

THE NEW YORK SOCIETY OF GERMAN PHYSICIANS.

A stated meeting was held January 23, 1880, Dr. E. Noeggerath in the chair.

Elephantiasis.—Dr. Klotz presented a case of elephantiasis of the leg and foot, occurring in a female, aged fifty-eight years. The appearance of the deep ulcerations, which preceded the enormous thickening of the soft parts, was strongly suggestive of syphilis, notwithstanding the absence of any previous history pointing to infection. The right arm and the region of the sternum showed numerous irregular, white, glistening patches of cicatrization. The patient had been in the condition above described for seven years; the ulcers had gradually filled up under the use of the solid rubber bandage. Circumscribed sloughing all around the ulcers set in last November, originating, not in a softening of gummy infiltration, but rather in an arteritis obliterans, of syphilitic nature. Marked diminution in the size of the limb and arrest of the sloughing process had been effected by the internal administration of corrosive sublimate. ═══ Dr. Langmann mentioned a very similar case, in which he had had occasion to notice that the swelling and the development of nodules were increased by irritant applications used under the advice of another practitioner. The use of mercurial plaster, combined with the internal administration of iodide of potassium, was followed by marked improvement. After eighteen months, no further improvement resulting, corrosive sublimate was substituted, and again replaced by iodide of potassium, and a complete cure was attained by the end of the third year. ═══ Dr. Jacobi laid stress upon the advantage of a combined administration of corrosive sublimate and iodide of potassium in such cases of syphilis. ═══ Dr. Klotz thought that that method had the disadvantage of precluding the alternate use of the two remedies, where one had ceased to be productive of further improvement. ═══ Dr. Noeggerath asked whether the healing process in cases of wounds produced by injury or operation was in any way influenced by the existence of constitutional syphilis. ═══ Dr. Klotz, in reply, referred to articles on the subject by Verneuil ("Centralblatt f. Chirurgie," No. 35, 1879) and Duesterhoff ("Arch. f. klin. Chirurg.," vol. xii., pp. 675–901), according to which no influence was exerted on the healing process by constitutional syphilis. ═══ Dr. Garrigues recommended the use of a three per cent. solution of chlorate of potash as an excellent stimulating lotion in cases of indolent ulcerations, to be applied under the rubber bandage.

Cryptorchis.—Dr. Schweig presented a young man who was under his care for a suppurating bubo, which masked the presence of a testicle that was retained in the inguinal canal. This condition, which was found to exist on both sides, required some caution in the opening of the abscess.

Uranoplasty.—Dr. Gerster presented a man, aged twenty-six years, on whom he had performed uranoplasty, by Langenbeck's method, eleven days previously. The defect was of syphilitic origin, and consisted in a perforation of about the size of a pea in the palatine process of the right superior maxilla, close to the raphé. Some difficulty was experienced in detaching the muco-periosteal covering of the bone, owing to its extreme thinness in the neighborhood of the perforation, and to the unusual degree of arching of the hard palate. Five carbolized silk sutures were applied, which were removed on the fifth day, union having taken place by first intention.

Tertiary Manifestations of Inherited Syphilis.—Dr. Brandeis mentioned the case of a girl twelve years of age, who, though to all appearances in the best of health until three months ago, was now deaf in both ears, and had a perforation of the hard palate and a parenchymatous keratitis, evidently the result of congenital syphilis. He inquired whether tertiary manifestations of congenital syphilis at this age were not unusual. ═══ Dr. Klotz thought that, in the light of his experience, he could answer the question in the negative. ═══ Dr. Adler instanced a case of congenital syphilis in a boy fourteen years of age, on whom he had performed laryngotomy for pharyngeal stenosis, at the German Hospital. ═══ Dr. Jacobi had also observed syphilitic necrosis of the vomer, with subsequent development of brain syphilis in the fourteenth year. ═══ Dr. Noeggerath had observed late tertiary manifestations of hereditary syphilis in a young married woman, twenty-eight years of age, whose father had been the subject of a severe form of syphilitic infection two years before her birth. She was affected with acute periostitis of both tibiæ and with albuminuria.

Double Cystic Development of Vesiculæ Seminales.—Dr. Heineman presented a specimen of double cystic development of the seminal vesicles; the apparent comparative infrequency of similar cases, only four being on record (Pitha and Billroth, Englisch, Mason, Peabody), he thought mainly due to the fact that post-mortem examinations did not generally include an inspection of the posterior surface of the bladder. ═══ Dr. Adler had seen an exactly similar preparation in the pathological institute at Heidelberg, and entered into the discussion of the manner of development of such cysts.

Diphtheritic Blood-Poisoning.—Dr. Jacobi reported the history of a case of diphtheria in a child three years of age, in which the local manifestations were comparatively trifling, while the constitutional symptoms were of the gravest character. The temperature did not rise above 100·4° Fahr. [38° C.], but frequent and abrupt changes took place from a condition of comparative well-being to a state of alarming collapse, the attacks varying in duration from an hour to an hour and a half. There was at present no visible diphtheritic deposit either in the pharyngeal or in the nasal cavities, the temperature was normal, and the pulse not rapid but very small. The heart, lungs, and kidneys were not involved, but there were somnolence and a tendency to syncope. It was characteristic of these cases of mild local and febrile disturbances, that the little patients succumbed to acute blood-poisoning, showing the advisability of an extremely cautious prognosis in even the mildest cases of diphtheria. ═══ Dr. NOEGGERATH thought that such cases could be accounted for by the assumption of a fatty degeneration of the muscular substance of the heart. ═══ Dr. RUDISCH considered the suggestion of a paralysis of the cardiac ganglia or of the pneumogastric nerve, without blood infection, to be plausible, and as analogous to other forms of diphtheritic paralysis. ═══ Dr. JACOBI remarked that, on the one hand, such paralyses usually occurred at an advanced period of convalescence, and that, on the other hand, paralysis of the vagus would cause an increase, and paralysis of the cardiac ganglia a decrease, in the frequency of the pulse-rate, neither of which had been observed in the case under discussion. ═══ Dr. ADLER remarked upon the unsatisfactory state of our present knowledge of the condition of blood-poisoning in such cases, without obvious physical alterations, and referred to the changes that take place in the blood of diphtheritic patients, according to recent investigations by Weickert, consisting in increased coagulability, with a tendency to degeneration of the red blood corpuscles. ═══ Dr. JACOBI, in reply to an inquiry by Dr. Klotz, remarked that poisoning by chlorate of potash, described by Marchand and himself as of frequent occurrence in the treatment of diphtheria, was entirely to be excluded in this case; the kidneys were perfectly healthy.

HYDRAMNIOS.—Dr. NOEGGERATH reported the history of a highly interesting case of hydramnios, occurring at the fifth month of a twin-gestation, simulating a uterine tumor. The diagnosis lay between hydramnios and double fibro-cyst of the uterus, and could be determined only by puncture. The patient had menstruated for the last time in August last. On a Friday, the abdomen was in a state of extreme distention, and contained an enormous fluctuating mass that extended to the ensiform cartilage, and was traversed by a median depression, which divided it into two symmetrical hemispheres. Vaginal examination showed the existence of a pregnancy of about the fifth month. By the following day the tumor had still further increased in size, and, despite the knowledge that this did not frequently develop prior to the seventh month of utero-gestation, a suspicion of hydramnios began to be entertained. In such cases of doubtful nature, the following simple manœuvre would often prove servicable: If the tumor were kneaded for two or three minutes, contractions of the uterine walls would ensue, and the outlines of the organ would be brought out very distinctly. In this case no contraction was obtained, nor could any vascular murmur be detected. The grooved needle was then resorted to, under the impression that the tumor was not the uterus, and about a gallon of fluid was removed from each half of the mass, whereupon the contractions of the uterus became appreciable, and its outlines distinct. This was on a Saturday; on the following Monday premature delivery of the twin products of conception took place, attended by the discharge of an additional gallon of liquor amnii. There had been no intention of producing a miscarriage, on account of the frequency with which septic endometritis was known to follow the attempt in cases complicated with the presence of a uterine tumor. In this case the growth had been assumed to be of extra-uterine origin. The unexpected discharge of amniotic fluid in this case, as in cases of retroflexion of the gravid uterus in which replacement was impossible, proved to be of great service. In the absence of the vascular murmur and of the contractility of an over-distended uterus, an absolute diagnosis could not be made without resorting to the trocar. ══ Dr. Jacobi inquired whether the puncture of abdominal tumors was entirely devoid of danger. He had seen puncture of the intestine with a very fine needle followed by fatal peritonitis, due to the escape of intestinal contents. Very recently an almost fatal case of peritonitis had come under his notice, following a puncture of a cyst of the liver or gall-bladder, which was in close apposition to the abdominal surface, and the contents of which were not purulent. ══ Dr. Gerster referred to Ultzmann's article on the electrolytic treatment of ovarian cysts, which had appeared in the "Wiener med. Presse" about three years ago, in which the author gave it as his experience that the puncture of cysts of purely serous contents was devoid of danger, whereas the puncture of cysts containing pus or ichorous matter was regularly followed by peritonitis. His observations would seem to prove that the employment of delicate needles in tapping would not prevent the escape of the contents of the cyst into the abdominal cavity, and that the danger depended mainly upon the nature of such contents. ══ Dr. Noeggerath thought the question could be briefly summarized as follows: Everything depended upon the absolute avoidance of every source of infection, either by means of the instrument, or through the escape of the contents of the cyst into the abdominal cavity. The means of guarding against this danger lay in the thorough disinfection of the integuments, the hands, and the instruments, and in the observance of certain simple, but none the less important, precautions. Thus, the needle should be absolutely round, such as those made by Lüer, of Paris, and without a cutting edge; the cyst should always be tapped at its summit, as affording a site at which, the intra-cystic pressure being everywhere the same, the force of gravitation was least exerted, and from which consequently the escape of fluid was least likely to occur. Finally, the integuments at the point to be punctured should be firmly compressed against the cyst-wall, and the needle should be rapidly introduced and rapidly withdrawn.

THE NEW YORK CLINICAL SOCIETY.

A regular meeting of the Society was held December 26, 1879, Dr. F. P. Foster, chairman for the evening; Dr. E. L. Partridge, secretary.

Retained Placenta after Abortion.—Dr. E. L. Partridge related two cases of prolonged retention of the placenta, or a portion of it, after abortion. The *first case* was one of criminal abortion in a young woman three months pregnant. The operator had excited uterine action by giving ergot and by evacuating the liquor amnii, and the fœtus was expelled. On the following day he made traction on the slender umbilical cord until it broke, close to the uterus. Then, from ignorance or timidity, he neglected to do anything more. Eight days afterward Dr. Partridge was called and found the patient in excellent condition, having remained in bed during this time. She had had no noteworthy hæmorrhage, although on three occasions there had been moderate discharge of blood; and no pain or constitutional disturbance. A laminaria tent was used, and after its removal, the next day, the placenta was found firmly attached throughout. Attempts at manual extraction gave so much pain that a tampon was inserted, and several hours later, upon its removal, the placenta was found in the os, and was easily removed. ══ The *second case* was that of a woman who had miscarried at the third month, under the care of a midwife. A large portion of the placenta came away at the time. The patient did well for five weeks, when she had repeated and exhausting hæmorrhages. Dr. Partridge first saw her six weeks after the miscarriage. After dilatation with a laminaria tent, a portion of the placenta was found so firmly attached as to require the use of the finger-nail to remove it. Dr. Partridge said that there was apparently good authority for the belief that the placenta might be largely removed by absorption.

ENLARGEMENT OF LYMPHATIC GLANDS IN MEASLES.—Dr. L. P. WALTON mentioned three cases of measles that had lately been under his charge, in which there was swelling of the lymphatic glands in the neck, the axillæ, and the sublingual region. The swellings were very painful, especially those in the axillæ, so that the arms were raised with difficulty. This experience he thought to be unusual. ═══ Dr. KELSEY and Dr. PARTRIDGE had seen *cervical* adenopathy in measles in several instances.

A REGULAR meeting was held January 23, 1880, Dr. W. H. KATZENBACH, chairman for the evening.

HYOSCYAMUS POISONING.—Dr. EMERSON mentioned a case of poisoning by hyoscyamus in doses of the fluid extract of not very unusual size. The patient received a mixture, of which each fluidrachm contained twenty minims of the fluid extract. One dose was given at one o'clock, and a second at five in the afternoon. On visiting the patient at 9.30 P. M., there were found dilatation of the pupils, dryness of the tongue, huskiness of the voice, and some delirium, the pulse being natural. Speedy recovery took place without treatment.

ATROPINE POISONING.—Dr. PARTRIDGE related the case of a lady who, on August 7th, at 7.30 P. M., took by mistake about two teaspoonfuls of a two-grain solution of sulphate of atropia—thus getting rather more than half a grain of the drug. At 8 P. M. she was found on her bed, unable to rise, complaining that she could not see, and of a sense of constriction about the throat. She had not eaten anything for seven hours. At ten o'clock vomiting was produced, for the first time, by a mixture of charcoal and tannin, given by a neighboring physician who had been summoned. At 10.20 P. M. Dr. Partridge reached her. The pulse was then 170, weak and irregular; the mouth and throat were dry, with a feeling of tightness; there was no tactile sensibility in the limbs, but a constant sensation of coldness and numbness; and she complained of dizziness. The temperature was 99·5° Fahr. The surface of the body was intensely red; there was deafness, with ringing in the ears and delirium, but no tendency to stupor or sleep. These symptoms lasted for two hours without improvement. Magendie's solution of morphia was given by the mouth, and retained, in the following doses: eight minims at 10.50 o'clock, eight minims at 11.20 P. M., eight minims at 12 P. M., and six minims at 12.45 A. M.—amounting to a grain of sulphate of morphia within two hours. After midnight the pulse began to grow stronger, and diminished in frequency from four to six beats each hour, but upon any accession of excitement it would become more rapid and irregular. There was constant delirium, with illusions. At 2 o'clock there was a slight tendency to sleep. At 3 o'clock the pulse was 130 and stronger. The patient was kept awake until 6 o'clock, when she had several short naps. There were now illusions as before, but there was less numbness. The pupils were all this time widely dilated, but slightly responsive to light. *August 8th.*—At 7.30 A. M., a bottle of citrate of magnesia was taken, and the bowels moved at 9 and 10 o'clock. At 11 A. M. the pulse was 80, the temperature 100·5° Fahr. The patient was now rational, with a flushed face, slight numbness, no pain, and no tendency to sleep. The urine contained phosphates, but no albumen. The pupils were moderately dilated. Ordered light diet, quietude; no medicine, unless morphine to procure sleep at night. During the day the bowels moved six times. *August 9th.*—

Patient weak, with occasional nervous symptoms. Pupils slightly dilated. Pulse 78. *August 14th.*—For the first time felt strong enough to be on her feet, but still complained of occasional numbness and tingling in the hands and feet. ═══ Dr. E. T. Ely called attention to the fact that, when dilatation of the pupil was produced by the local application of atropine, it did not respond to light, while, as in the case narrated, it might respond when the drug had been taken internally. ═══ Dr. Emerson thought that the citrate of magnesia would scarcely have produced such free action of the bowels, a few hours after the liberal use of morphine, except for the influence of the atropine—a fact further illustrative of the antagonistic action of morphine and atropine.

Foreign Bodies in the Ear.—Dr. G. H. Fox mentioned the case of a patient who for several days had had pain in the ear, with impaired hearing. A wad of soft paper was found firmly impacted in the ear, and was removed. The man had taken a surf-bath a few days before, and had first felt the pain and deafness immediately after having been struck on the side of the head by a wave. The only way that he could account for the presence of the paper in his ear was that it had been carried in by the wave. ═══ Dr. A. A. Smith alluded to the case of a lady who had engaged him to attend her in labor, and who complained of headache, dizziness, and nausea, without any evidence of kidney trouble. She soon found that she was somewhat deaf, and Dr. Smith discovered and removed from her ear a wad of cotton half an inch long, which had been inserted five months before. Her symptoms at once disappeared.

Carbolic Acid Poisoning.—Dr. Smith related a case in which a young man had been suffering for some time from knee-joint trouble. On the 20th of January, at 4 p. m., a large abscess above the knee had been opened, and a quantity of unhealthy pus let out. No anæsthetic was employed. The cavity of the abscess was washed out with a one-to-thirty solution of carbolic acid. The patient at once complained of faintness, and, according to the surgeon, fell back pulseless. For the next five hours the pulse continued very weak, and there was delirium during the latter portion of the time—probably, however, from the free use of stimulants. Six hours after the operation he was seen by Dr. Smith, who found the heart-sounds distinct, the pulse very feeble, and the pupils dilated. A large amount of brandy had been given, and (subcutaneously) ninety minims of ether and fifteen of laudanum. Vomiting now occurred when anything was taken into the stomach. The condition was one of severe shock. Nitrite of amyl was given by inhalation, and, although vomiting was produced, the pulse responded well and promptly. Active delirium followed, and the patient refused the amyl. Sulphate of atropia ($\frac{1}{70}$ grain) was given to stimulate the cutaneous circulation and restore warmth, and, as the patient then seemed slightly improved, complete quietude was advised. Three hours' sleep occurred, followed by general improvement. The next day he was rational, with a temperature of 103·7° F., and a pulse of 124. The urine passed then, for the first time after the operation, was very dark in color. The patient steadily improved. Two days later the pulse was 104, and the temperature 101° F. There had been some pain over the lower portion of the spine. Dr. Smith did not think that the elevation of temperature was the effect of the carbolic acid. ═══ Dr. G. L. Peabody stated some facts concerning three cases of the kind that had come under his notice. The *first case* occurred in a man attached to the Disinfecting Corps of the Board of Health, who, by the breaking of a bottle of carbolic acid in his pocket, sustained severe burns, from which he died within a week. He had been of temperate habits. The urine that he passed was of very dark color. At the autopsy the kidneys were found very large and intensely congested, showing every appearance of acute nephritis. The *second case* was the result of treatment by Lister's method with a one-to-twenty solution of the acid. Symptoms of collapse came on suddenly. The *third case* was similar to the second, and of like origin. Both ended in recovery. Dr. Peabody referred to Sonnenburg's report of six cases of carbolic acid poisoning occurring, chiefly in young persons, at Lücke's clinic at Strasburg. This report, together with laboratory work upon the lower animals by the same authority, showed that great danger might arise from the washing out of wounds and cavities with strong solutions of carbolic acid. The urine in such cases was deficient in sulphates. Sulphate of sodium was the antidote, to be used in liberal and frequent doses—the result being the prompt reappearance of sulphates in the urine. It was given in the second and third of the cases that he had mentioned, with gratifying effect. The color of the urine did not depend upon the presence of blood. ═══ Dr. PARTRIDGE mentioned the case of a child, two years old, who had been found with a half-empty bottle of carbolic acid that had been carelessly left within her reach. Her face and mouth showed marks of contact with the acid, and her hands also were somewhat burned. There was severe shock, but no coma or delirium. The next day the urine was of a very dark purplish color. ═══ Dr. KATZENBACH alluded to a case, reported by Dr. A. H. Smith, in which the cavity of an abscess of the liver was injected, through an aspirator-needle, with a solution of the acid. Such severe shock followed, that artificial respiration was required for more than an hour, together with free stimulation. It was probable that the injection occurred partly into liver-tissue. He quoted Dr. Billington as authority for the statement that dilatation of the pupils was present in these cases.

Reports on the Progress of Medicine.

QUARTERLY REPORT ON GENERAL MEDICINE.

No. I.

By W. H. KATZENBACH, M. D.,
ATTENDING PHYSICIAN FOR DISEASES OF THE CHEST TO THE OUT-DOOR DEPARTMENT OF BELLEVUE HOSPITAL.

1. DANDRIDGE, N. P.—The accidents which have been observed after thoracentesis practiced for the removal of pleuritic effusion. "Cincinnati Lancet and Clinic," Jan. 3, 1880.
2. MACKENZIE, J. C.—Two cases of pleurisy, complicating phthisis pulmonalis, treated by aspiration, one followed by death in two hours. "Cincinnati Lancet and Clinic," Jan. 3, 1880.
3. CORMACK, Sir J. R.—A case of pleuro-pneumonia following a fall, in which the chest was struck over the site of a pseudo-osseous formation in the pleura; thrombosis; sudden death. A clinical, pathological, and medico-legal study. "Edinburgh Med. Jour.," Jan., 1880.
4. MACKENZIE, G. H.—The antiseptic treatment of phthisis pulmonalis. "British Med. Jour.," Jan. 3, 1880.

5. Murrell, W.—On the treatment of the night-sweating of phthisis. "Practitioner," Oct. and Dec., 1879.
6. Boggs, A.—A case of pleuro-pneumonia with effusion, treated by the ergot of rye; rapid recovery. "British Med. Jour.," Nov. 15, 1879.
7. Jones, C. H.—Pneumonia with copious hæmoptysis, treated by ergot; speedy recovery. "British Med. Jour.," Nov. 29, 1879.
8. Foster, H. J.—The thermometer as an aid to the prognosis of coma. "Lancet," Dec. 27, 1879.
9. Woodbury, F.—Fatal intestinal obstruction by gall-stones. "Am. Jour. Med. Sciences," Jan., 1880.
10. Stewart, F. E.—A new method of rectal alimentation. "Med. Record," Jan. 3, 1880.
11. Hoff, J. V. R.—Typho-malarial fever, the so-called "mountain" fever of the Rocky Mountain region. "Am. Jour. Med. Sciences," Jan., 1880.
12. Pepper, W.—Notes on a case of mild typhus or typho-typhus fever occurring at the Philadelphia Hospital. "Phila. Med. Times," Jan. 17, 1880.
13. Mills, T. W.—Fatality in typhoid fever. "Canada Med. and Surg. Jour.," Jan., 1880.
14. O'Hara, M.—A case of idiopathic (?) pyæmia, or blood poisoning, with remarks. "Phila. Med. Times," Jan. 17, 1880.
15. Finny, J. M.—Clinical lecture on idiopathic anæmia. "British Med. Jour.," Jan. 3–10, 1880.
16. Clark, A.—Renal inadequacy. "Lancet," Nov. 29, 1879.
17. Donkin, H.—On some cases of abnormally high temperature. "British Med. Jour.," Dec. 20, 1879.
18. Wortabet, J.—A case of Bilharzia Hæmotobia. "Edinburgh Med. Jour.," Jan., 1880.
19. Russell, J.—A case of cerebral pneumonia. "British Med. Jour.," Jan. 3, 1880.
20. Nicholson, W.—Alkalies in anæmia. "Practitioner," Jan., 1880.
21. Roberts, W.—A contribution to the therapeutics of starch digestion. "Practitioner," Dec., 1879.
22. Jacobi, A.—Typhoid fever in infancy and childhood. "Med. Record," Oct. 25, Nov. 1, 1879.
23. Bennett, A. H.—A case of cerebral hæmorrhage in an infant one year and ten months old. "British Med. Jour.," Nov. 1, 1879.

1. Dr. Dandridge formulates the following as the accidents which have followed thoracentesis in pleuritic effusions, some of which, he thinks, must be considered as merely concomitant facts of the puncture, while others must be held to be more or less intimately dependent upon the operation, or the measures by which it was followed. *Syncope*, fatal or transient, due to reflex action, or to the paralyzing influence on the heart-walls of the sudden removal of the pressure of the pleuritic fluid. *Convulsions*, dependent upon reflex action, or due to minute emboli in the cerebral vessels. *Pulmonary congestion* and *œdema*, suddenly developed with or without the rapid accumulation of serous exudation into the bronchial tubes, producing asphyxia. *Embolic obstruction* of the pulmonary artery of the sound lung. *Embolic processes* in various organs and of various grades of severity, which have their origin in clots previously formed in the pulmonary veins of the compressed lung. These last, when they occur at the time of, or soon after, the operation, may have been excited by it; when they develop days afterward, they must be held as incidents of the original trouble, and in no way connected with the operative measures undertaken.

2. Thoracentesis was resorted to in both of these cases, simply as a

palliative measure to relieve breathing, and to render the patients' condition more comfortable. In the first case, the withdrawal of sixty-one ounces of sero-sanguinolent fluid from the right pleural cavity was followed by rapid improvement. In the second, twenty-seven ounces of the fluid were removed from the right pleural cavity. The first part of the fluid was transparent, but the latter portion was tinged with blood. After about a pint had been withdrawn, the patient complained of pain in the epigastrium, and soon afterward of great distress in breathing, with cough and bloody expectoration. These symptoms lasted about an hour, and then subsided, but the breathing remained frequent, although there was no cyanosis. He gradually grew weaker, became unconscious, and died two hours after the puncture. At the autopsy, the right lung was found retracted against the spinal column; ten ounces of bloody fluid in the pleural cavity; lung partially covered with thick false membrane; over the lower part of the lung the surface was found uncovered, as though the membrane had been torn off by sudden expansion. The upper lobe partially calcified; the lower, œdematous. The left lung contained patches of lobular pneumonia; and both, gray granulations. Right and left ventricles of heart dilated, the right greatly so, and the cavities empty. Death was referred to the effects of the tension, occasioned by the withdrawal of the fluid, upon both the heart and lungs.

3. The patient had been in hospital two years previous with pleurisy. A stableman, of intemperate habits, while washing a horse, stumbled and fell, striking with his whole weight on the sharp edge of a water-pail. This was soon followed by acute pain in the left chest, increased by deep breathing or movement. Delirium soon set in, and he was admitted to hospital five days after the injury, with quick, shallow respiration and high temperature. On examination no fracture of the ribs was detected, though he insisted that he felt the broken ribs sticking him. Marks of bruises on right shoulder and right side of back, and a discolored patch over and between the eighth and ninth ribs, and extending to within one inch and a half of spine. Dullness over both sides of chest; bronchial breathing and crepitation on right side, upper half, and absence of breath-sounds below; a very distinct friction on left side over lower two thirds. On the following day the friction sound had disappeared, but otherwise the signs were very little changed. He expectorated thick, tenacious, bloody sputa; the urine was albuminous. Pain persisted, and he refused to take food or medicine, except occasionally. He died suddenly on the fifth day after admission. At the autopsy both lungs were found adherent to the chest-wall and diaphragm by thick and dense false membrane. A hard, long-shaped body, with jagged surface, was found imbedded in the thickened pleura and false membrane on the left side, lying parallel to and in front of the seventh and eighth ribs, two inches from the vertebral column. This was at first supposed to be the fragment of a broken rib, but the ribs were found intact. It closely resembled bone in external appearance. On microscopical examination it proved to be calcified connective tissue. Chemical examination showed it to consist principally of carbonate of lime. The right lung was in a state of gray hepatization in the lower half; red in the upper. The left lung was congested in its upper third, and in a state of red hepatization in its lower two thirds. The left pleura contained several ounces of a yellow serous effusion in sacculated pouches. The pulmonary artery, with its principal branches, was filled by a firm, tough coagulum, of pale yellowish color centrally. This was a prolongation of one contained in the right ventricle. All the cavities of the heart contained coagula. Valves healthy; no atheromatous or calcareous deposits in blood-vessels. Spleen enlarged. Kidneys and liver enlarged and congested.

4. Dr. Mackenzie has had a respirator made to cover both nose and mouth. It has a double breathing-chamber, for containing pieces of sponge saturated with a strong solution of carbolic acid or creasote. The respirator is worn as continuously as possible, night and day. The fluid is renewed night and morning by means of a camel-hair brush. His experience has been limited, and confined to cases in the first stage. The inhalations alone have been used in these cases, and the results obtained have been sufficiently satisfactory to justify their continuance. He does not claim that cases of phthisis are cured by this system; but the night-sweats, cough, and impaired appetite have been so ameliorated as to justify him in giving this preliminary report.

5. *Picrotoxine.*—Dr. Murrell employed a saturated solution (1 : 180). A drachm of this was added to eight ounces of water, and of this a teaspoonful was given at bedtime only, or three or four times during the day. The author used the remedy in twenty cases, with only one failure (and even there it was of benefit at first). The plan of giving it at bedtime answers admirably. As a rule, there is no improvement the first night, but on the second night the perspiration is less, and by the fourth night it has practically ceased. The sweating returns in from ten to fourteen days, necessitating a return to the treatment. *Jaborandi* was used in sixteen cases, thirteen of which were phthisis, and in all with great benefit. In some instances a drachm of the tincture was ordered in eight ounces of water, and of this a teaspoonful was given every three hours; in other cases fifteen to twenty minims were given every four hours. The larger dose is to be preferred. In two cases twenty minims every four hours produced the physiological action of the drug, showing that too much had been given. Patients with phthisis to whom it was given frequently remarked that it "did the cough good," "brought up the phlegm," and "eased the breathing." It is certainly a useful expectorant. *Pilocarpine* was used in seventeen cases, in every instance with some good; in most it was a great success. As a rule, the nitrate was given, but in some the hydrochlorate was used. Both appear to act equally well. The dose employed, with a few exceptions, was a twentieth of a grain. In earlier observations it was given in solution in water, but, in later ones, in pill with sugar-of-milk. In some cases the drug was given three times a day, in others four times, and sometimes only at bedtime. When the sweating at night is severe, it is a good plan to give a pill three times during the night. After the sweating is checked by this remedy, there is usually no return for many weeks.

6. A young married woman, aged twenty-eight, was attacked with pneumonia of the right lung, accompanied with pleurisy and effusion extending to the top of the scapula. The sputa were mixed with blood, and the cough was continual. Fluid extract of ergot and liquor ammonii acetatis were given. On the ninth day there was complete defervescence; the sputa were free from blood. On the eleventh day the absorption of the effusion was almost complete. Dr. Boggs regards ergot as a powerful febrifuge, which may in certain cases be substituted for quinine.

7. Hæmoptysis occurred on the first day. Extract. ergotæ fl ʒ j, with liq. ammonii acetatis ℥ j, was given four times a day. Duration of disease, from commencement to defervescence, six days; to nearly complete absorption of the exudation, eight days.—Ergot, in many inflammatory affections, is a disappointing remedy, in the experience of Dr. Jones.

8. The case is related of a gentleman found insensible, but with no concomitant symptoms of apoplexy. The temperature was 93·2° F., and the pulse 51. The diagnosis of incipient extravasation was formed, and a grave prognosis as to the patient's ultimate recovery made. Consciousness returned in thirty hours, and the patient was completly hemiplegic.

Given, the author says, a case of sudden insensibility, *pure and simple*, in proportion as the temperature is below normal, so much the more is the probability of cerebral destruction evident, and in inverse ratio is the chance of the patient's recovery.

9. In cases of biliary colic the attack is usually terminated when the gall-stone is discharged into the intestinal canal; but it will occasionally happen that the calculus is the cause of further pain in its passage through the small intestine; or, on account of its size, it may block up the canal and cause fatal obstruction. A lady, sixty years of age, while in good health apparently, was suddenly seized with violent cramp-like pains in the abdomen, persistent vomiting, and prostration, only relieved by a full hypodermic injection of morphine. The next day, though the abdomen was tender and distended, the patient was easier, but vomited at intervals. The bowels were obstinately constipated, notwithstanding the administration of two bottles of citrate of magnesia in the night, and ten grains of calomel given through the morning, in two-grain doses every two hours. Pain in abdomen partially relieved by hot poultices. On the third day the abdomen was soft and not tympanitic, and only slightly tender. No pain was complained of, and she was only annoyed by the persistent vomiting. Had taken no nourishment but tea. She slept from time to time under morphine. On the fourth day she was weak, but free from pain. Laxative enemata failed to produce evacuation of the bowels. On the fifth day she died exhausted. No jaundice was observed at any time during the illness.

Autopsy.—Liver enlarged and fatty; the neck of the gall-bladder softened and patulous, tearing easily; its fundus contained some gall-stones. An elliptical concretion, of about the size of an English walnut, resembling in form and color a small potato, was discovered distending the jejunum at its upper portion, just below the duodenum, fitting the intestine as tightly as a finger does a glove. Above this point the intestines were distended by gas and fluid; below it, contracted. The mucous membrane of the stomach was congested and softened, and studded with small ulcers, especially near the pylorus. Chemical examination showed the calculus to be nearly pure cholesterine. Its weight was 7·270 grammes. A number of cases similar to this are cited.

Diminution of urine is insisted upon by some authorities as evidence of obstruction in the upper portion of the small intestine. Tympanites may be entirely absent when the impaction is situated high up in the jejunum, while it is always a marked symptom of occlusion lower down the tube. Vomiting occurs earlier, and is more decidedly bilious in obstructions at the upper part of the intestinal canal. In cases where decided impaction exists, after ordinary measures (saline purgatives and calomel, large emollient injections of warm sweet-oil or linseed tea, aided by manipulations through the abdominal walls) have failed to dislodge the stone, it would seem to be justifiable to cut down and remove it, as has been recommended by Ashhurst, and treat the case subsequently as one of ordinary wound of the intestines.

10. The object of this paper is to call attention to desiccated defibrinated blood as an agent especially adapted for rectal alimentation. Blood for this purpose must be from healthy animals. None but powerful, vigorous bullocks, fed and rested until the heart's action has regained its accustomed tone, should be selected. The killing must be done by bleeding. No heat above 110° F. should be used in drying the blood, and the process should be as instantaneous as possible, and without agitation. Blood thus prepared is readily soluble in water below 160°, and contains all the elements of blood, except water and fibrine. A little more than a drachm of the dried article is necessary to represent a fluid ounce of blood of ordinary specific gravity, but it is sufficient to remember, in using, to employ a drachm to the ounce of water. To dissolve it, it should be thrown into water, and allowed to stand until the albumen becomes perfectly soft, to prevent sticking to the stirring rod or dish. Gentle agitation will then convert it into a perfectly homogeneous fluid, closely resembling fresh blood. From four to six ounces of the powder daily, or more, is the dose, which may be given at once at bedtime, or in divided portions during the day. If a greater amount than can be absorbed be injected at once, and decomposition result therefrom, it is advised to wash out the rectum with tepid water before resuming the medication.

11. In this exceedingly interesting paper Dr. Hoff gives the full clinical histories of five cases of this disease, which were observed by him at Fort Fetterman, Wyoming, in the autumn of 1878. One patient died from peritonitis, the result of perforation, and at the autopsy the small intestine showed the lesions of typhoid fever. The remaining four cases terminated in recovery. In reviewing the histories, the author claims that it is reasonable to assume that the external causes of disease were identical from the fact that the outward conditions of the patients were entirely similar. By exclusion he is forced to attribute the source of the toxic germs to the water formed by the melting snow. In the histories related, the mode of onset, the symptoms, and the course of the disease were similar, being modified only by individual idiosyncrasies. In the fatal case the patient seemed to be more under the influence of the *materies morbi* when first seen; but under treatment his condition improved, and his prospect of recovery was good. He undoubtedly had typhoid fever, and died from its effects. Hence the conclusion: all the cases were typhoid. In every case there were at intervals, with more or less regularity, chill, fever, and sweat—frequently all three—invariably two of these pathognomonic stages of intermittent fever. Diarrhœa did not appear in any case. Constipation was the rule. There was no tympanites or meteorism. Only one patient had the typical roseola. No epistaxis early in any, and no intestinal hæmorrhage. Herpes labialis appeared in three. Convalescence was rapid, and the hair did not fall.

The following are the author's deductions: *1st.* The fever of the Rocky Mountain region is a hybrid disease, the prominent features of which are typhoid—the modifying, intermittent; it is, in fact, the typho-malarial fever of Woodward. *2d.* It appears during or after exposure to field-service, generally, though not necessarily, in late summer and early autumn, and seems to bear no relation to typhoid infection as now usually accepted by the profession. *3d.* At its inception, this disease manifests itself as an intermittent of quotidian, tertian, or other form; this stage is followed (in about two weeks) by the typhoid stage, lasting in the neighborhood of four weeks, in which typical typhoid symptoms may be observed, modified to a greater or less degree by intermittent indications. *4th.* The pathological anatomy of the disease is that of typhoid fever. *5th.* The treatment should be antiperiodic and antipyretic.

12. Typhoid is the only form of continued fever that habitually occurs in Philadelphia. Typhus has not prevailed in what may be termed an epidemic form since 1870. The severity of typhus varied markedly at different periods between 1867 and 1877. In 1864–'5 a more grave type of the disease prevailed than at any subsequent period. It was noticeable that the characters of the typhus fever were decidedly modified by other zymotic diseases prevailing at the time; this was particularly the case with cerebro-spinal meningitis and relapsing fever. There has always been a large proportion of mild cases mixed with the grave, in which the symptoms were imperfectly developed, and the duration more or less curtailed. The most interesting and important modification, and the most constantly present in each year, has been the presence of some of the features of typhoid fever in cases of undoubted typhus. The most marked peculiarities of such modified cases have seemed to be, the occurrence of looseness of the bowels, with some slight degree of distention of the belly; slight attacks of epistaxis; and some bronchial irritation. But the true nature of the case and the predominant morbid element were evidenced by the abrupt onset, the early appearance of the eruption (third or fourth day) and its character, and the occurrence of the crisis from the tenth to the fourteenth day. The mortality in cases of modified typhus has been small, and where post-mortem examinations have been made the intestinal lesions have not been so advanced, in several instances, as would be expected in cases of uncomplicated typhoid of the same duration. There was enlargement with congestion of Peyer's patches, and swelling of the solitary glands. From these and other circumstances it appears that both poisons probably coexist in such cases, that each undergoes modifications which influence its activity and evolution. Dr. Pepper reports a case of this modified typhus, of moderate severity, which was recently admitted to the Philadelphia hospital, the first for at least six or seven years. Convalescence was far advanced on the fourteenth day. Several cases of a similar character have since been admitted to the hospital.

13. The author recalls the statement, made by Dr. R. P. Howard, President of the Medico-Chirurgical Society of Montreal, at a meeting of the Society, that the fatality in typhoid fever depends largely on neglect in regard to proper treatment in the early period of the disease, especially with reference to *confinement of patients to bed.* During 1878 there was but one death in the Hamilton City Hospital from typhoid fever. (Number of cases not given.)—During 1879 the mortality from typhoid was nearly 70 per cent., although the same line of treatment was pursued as in the former year. The explanation of this, Dr. Mills conceives, is found in the history of the cases prior to admission; and illustrated by notes of four fatal cases occurring almost in succession. None received proper care in the early period of the fever. From a comparison of clinical notes and autopsy records, the following conclusions are drawn: (1.) Death was not caused in any of these (four) cases by hæmorrhages, perforations, peritonitis, pulmonary, or any other complications. (2.) Death is traceable to prolonged high temperature, acting under circumstances highly favorable to the production of fatty degeneration and the consequent cardiac weakness it entails. (3.) Death was due to general asthenia; the *coup de mort* being cardiac syncope.

14. The case is of interest from the absence of wound or injury. The patient, a male, fifty years of age, of robust appearance, had been slightly unwell for two days before consulting Dr. O'Hara. He stated that he had never been sick in his life; that he had a sluggish liver and a costive habit. When first seen he had pain below the right nipple, and slight soreness in the front of the right leg, from the instep up about three inches, but in this latter situation no source of trouble could be found. There was a small external pile, not irritated nor the source of any irritation. Pulse 90, and temperature 103°. Some dullness at lower portion of right lung; no pain on inspiration. Skin not very dry, and, together with the conjunctivæ, of a slight yellow tinge. Liver slightly enlarged. Urine normal. A febrifuge was ordered, also calomel and rhubarb. This was on August 3d. *Aug. 4th*, 6 A. M., temperature 105°, and pulse 100. At 11 A. M. a severe rigor, followed by a flood of perspiration for nine hours. Temperature 106°, pulse 92 and full. At 9.30 P. M. another chill, followed by a less profuse sweat of two hours. *Aug. 5th*, 6 A. M., temperature 101°, and at 6 P. M. 103°. Pulse more frequent; took nourishment and stimulants more freely; bowels moved freely; no jaundice; kidneys active. *Aug.*

6th. Sweating freely; bowels open twice; kidneys active; takes less nourishment. Heavy and restless, sleeps poorly. At 6 A. M. temperature 102°, pulse 106. At 6 P. M. temperature 105°, pulse 102. At 10 P. M. temperature 102°, pulse 102. *Aug. 7th.* High temperature maintained. Physical signs unchanged. *Aug. 8th*, 7 A. M. Suppression of urine to-day. Some abdominal distention with gas, and tenderness in the umbilical region. The fourth chill occurred at midnight, with temperature 105°, respiration 30. Renewed congestion of lung, with bronchial and crepitant râles, and friction sounds at apex of left lung. Looseness of bowels, offensive discharges, some tenesmus. Takes nourishment and stimulants freely, but is getting exhausted. A patch of gangrene discovered over right ischio-rectal region, with bogginess of adjoining parts. In an hour another patch below the first; extension of bogginess, with fluctuation. On incision, gas of putrid odor escaped, and it was considered to be a gangrenous cavity. The patient sank rapidly, dying August 9th, with symptoms of cerebral and cardiac thrombosis. No post-mortem was made. The patient lived in a part of the city where the public inlets exhale a most offensive odor. The condition of his dwelling was admirably suited to develop a poisoned state of the blood. His sleeping-room had a stationary wash-stand, and was in close relation to an offensive water-closet; and below the sleeping-room window was an open offensive drain-pipe. He died at his seaside residence. Here there was a water-closet arrangement in his house communicating with a street-drain, which emptied into a creek back of his house. With each tide, the flow of sewage was dammed backward, and the sewer-gas driven back, and its offensiveness could be plainly perceived. Dr. O'Hara thinks the case might be called fæco-malarial fever. The case was discussed at the meeting of the Philadelphia County Medical Society, held November 26, 1879, and the diagnosis of pyæmia was generally accepted.

15. In this lecture the author gives the histories of three cases in detail, and the microscopical appearances of the blood in each. All were treated with arsenic. Two recovered. Case I. was that of a man twenty-seven years of age, and a clerk by occupation. He took Fowler's solution in three- to four-drop doses daily for two months without intermission. Remained in hospital six months, and subsequently made a complete recovery. Case II. Male, forty-eight years of age; shoemaker. Arsenic treatment; recovered. Case III. Female, fifty-four years of age; married. Arsenic treatment. Died by exhaustion from diarrhœa. An autopsy could not be obtained.

16. At the meeting of the Medical Society of London, held November 24, 1879, Dr. Andrew Clark read a paper on *Renal Inadequacy*, by which is meant that state of the kidney in which it is unable, without material diminution of quantity, to produce a urine containing the average amount of solids and of a specific gravity greater than 1·014. The diminution of solids chiefly affects the urea and uric acid. The pathological state of the kidney is probably one of slight withering and induration. This renal inadequacy has no characteristic symptoms, and we find it only by searching for a cause which shall be found adequate to the explanation of the patient's trouble. The symptoms and signs most commonly associated with it are flatulent dyspepsia; palpitation, with a very feeble and interrupted capillary circulation; a dry, shiny, waxy skin; numbness, tingling, cramps, and pains in the limbs, occasional flushes, worry of brain, and general nervousness; sometimes, but rarely, evidences of gout. One knows in a given case that these symptoms are due to renal inadequacy; not merely because there is a grave deficiency in the excretion of urinary solids, but because whatever diminishes that secretion, or whatever adds to the amount of solids to be excreted, invariably within a short time aggravates the patient's sufferings. The subjects of this condition are exceedingly vulnerable; they repair very slowly the damage done by accident or disease; and bear very badly the shock of surgical operations. Patients, the subjects of renal inadequacy for over four or five years, have a striking physiognomy: from one side, like that of pernicious anæmia; from another, like that of chronic Bright's disease; and yet it seems distinct from both. As to treatment, much may be done by adjusting the quantity and quality of the food. The medicines found most useful are small doses of arsenic, with reduced iron, at meals, and an occasional mercurial alterative. If digestion is disturbed, he discontinued the arsenic and iron, giving the patients bitters with alkalies between meals, and a mercurial alterative every third night, for two or three times.

17. This is a report of eight cases, in which the temperature rose to 108° or above. In one it reached 117°. All ended in recovery. In some a rapid fall seems to have taken place. In some there was considerable sweating with the high temperature. The following results appear from analysis: (1.) In most, *pain* was a very prominent symptom. (2.) The female sex is more prone to show these phenomena than the male. Seven of the eight patients were females. The male was described as emotional. (3.) There is no serious importance in the rise of temperature *per se*.

18. The symptoms were first noticed by the patient in the winter of 1877–'78, while traveling in Arabia. They were severe pain in the bladder, a frequent desire to urinate, and pain in urination. The urine was red and bloody. He had also at first an eruption of a few pimples on the legs, thigh, and wrist, which opened and ulcerated, the ulcers being covered with scabs. They healed six months after, leaving dark scars. In the spring of 1878 he passed small clots of blood with his water, which was voided about six times in twenty-four hours, with pain and burning at the neck of the bladder toward the end of the act. Repeated examinations of the urine always revealed the ova and free embryos of the Bilharzia. The fully developed parasite was not seen in the blood-clots. The ovum is oblong and pointed at the extremities; measures $\frac{1}{200}$ of an inch in length, and $\frac{1}{500}$ of an inch in breadth. The fully developed worm is half an inch or more in length. Dr. Harley found eggs and ciliated embryos in the urine of patients from the Cape of Good Hope who were suffering with hæmaturia.

[According to Roberts ("Urinary and Renal Diseases"), this creature does not produce much mischief in the larger veins; but, when lodged in the smaller vessels of the mucous and submucous tissue of the urinary and intestinal tracts, it engenders severe and often fatal disorganization. Griesinger found that, in the large intestines, it gave rise to a disease resembling dysentery. The ravages of the Bilharzia produce much more serious results in the urinary channels than in the intestines. When it invades the ureters and pelvis of the kidney, its effects are still more destructive; a hydronephrotic condition is produced from the obstruction, or inflammation and suppuration are set up, and severe pyelitis ensues. The parasite probably gains entrance into the body through the stomach by means of drinking infected water, or eating salad to which the animal or its embryos or ova adhere. It sometimes obtains admission through the skin of the person while bathing.]

19. The case was one in which the nervous disturbance at the outset was severe, and the high temperature continued through four days before the symptoms and physical signs of pneumonia made their appearance. The boy was ten years of age; had been in good health. In the morning he shivered; was dull during the day; complained of headache, and vomited. On admission to hospital in the evening, his temperature was at 103·6°, and at midnight it reached 105°. It dropped to 102° the day following, but again rose, reaching 104° on the fourth morning. The pulse was 120; respiration never above 25. During this time he had severe headache and constant vomiting of green fluid, with slight herpes at the angle of the mouth. Attention had been directed to the lungs, but there were no symptoms or signs of chest affection. On the fourth day the cerebral symptoms were relieved. The next morning general consolidation of the right lower lobe was discovered. The pulse and respiration had risen, and all the symptoms of cerebral disorder had completely cleared away. The case followed the course of a typical pneumonia, and recovery was complete and rapid.

20. There is an hepatic anæmia, that is, an anæmia produced by hepatic disorder. This form of anæmia is remarkably common, in fact the commonest form; and all cases of anæmia without any apparent cause are hepatic. The alkalies, especially potash, have a beneficial action on the liver, which action tends to restore the blood to its normal character. The alkalies ought to take the place of iron in the treatment of anæmia. Potash has a much greater affinity for oxygen than soda out of the system, and probably it is the same inside the system. In using the alkalies we must not limit ourselves to symptoms localized in the digestive tract, such as a furred tongue, loss of appetite, acid eructations, flatulence, heartburn, etc., for there are conditions where none of these symptoms are present, and yet where the alkalies are beneficial and curative. Perhaps the best-known indication that is not local consists in the abnormal urinary sediments, whose formation is prevented by alkalies. It is the same often with gouty pains, and with many cases of eczema and other skin eruptions. The morbid condition is caused by a disorder of the liver, which is not directly connected with digestion so much as with the blood. We may give the alkalies to improve the tone of the digestive system, increasing the appetite, aiding the liver to work, promoting the flow of bile, and clearing the blood and urine from lithates, or sediments and impurities. If the alkalies can effect this, then assuredly they are tonic. The pigment of the urine is derived from the biliary pigment; and the sediments, from the digestive tract, or, as Murchison more correctly limits it, from the liver. If the alkalies clear the urine from these pigments and deposits, it must be by virtue of a salutary action on the liver. Certainly the most important action of potash is on the liver, and especially on that function of disintegration on which excretion depends, and the elimination of bile, consequently the good effects are seen, not locally only, but universally. In what manner it acts on this organ may be questionable; perhaps the oxidation theory may be correct. In anæmia the best results are found from potash from the beginning to the end of the disease, and by it the author hopes to cure most of the cases he treats, unless due to tubercle, or secondary to some incurable lesion. The alkalies produce no depressing action; but when given continuously for long periods the patient or the patient's stomach sickens at them, the same as it might do at any other monotony. Dr. Nicholson is in the habit of prescribing the bicarbonate of potash in twelve- to twenty-grain doses four times a day continuously for months, combining with it the spirit of chloroform, which enables it to be better borne. He has failed to trace any connection between pyrosis and the continuous administration of potash, and regards the idea as traditional and not supported by unbiased observation.

21. The digestion of starch consists in its conversion into sugar and dextrine. This conversion is effected partly by the saliva, and partly by the pancreatic juice, and the actual agent of the transformation is a special ferment contained in these secretions. Ptyaline is held to be identical with the diastase of malt. As regards the pancreas, its diastatic agent is a distinct body from that of saliva and malt. "Diastase" is used to signify an amylolytic ferment—that is, a ferment which has the power of resolving the starch molecule into more diffusible bodies of the sugar and dextrine class. Before diastase can exercise its power, the cellulose investment of the starch granule must be ruptured by cooking. Our knowledge respecting the imperfect digestion of starch from the deficient diastatic power of the saliva and pancreatic juice is very incomplete. We know that in infants under three or four months old the saliva has but a feeble diastatic power, and it is probable that this power does not exist in sufficient amount in the pancreatic juice to be available for the digestion of sensible quantities of starchy food. With regard to older children and adults, we possess very little exact knowledge respecting defective secretion of salivary diastase, and none at all respecting defective secretion of the pancreatic juice. In the febrile state, in the advanced stages of most organic diseases, after alcoholic excesses, and in many morbid conditions of various kinds, the mouth is dry and the saliva scanty. If this defect can be remedied by artificial means, we shall be doing an important service to our patients. Malted barley possesses an unlimited supply of diastatic power. Dr. Roberts refers to the report on malt extracts in the "Pharmaceutical Journal" for March, 1879, and concludes that Corbyn's, Kepler's, Trommer's, and maltine are highly active from the amount of diastase they contain. *Malt Infusion.*—The cold water infusion is an active diastatic agent, and is thus prepared: Three ounces (or three piled up tablespoonfuls) of crushed malt are thoroughly well mixed in a suitable vessel with half a pint of cold water. The mixture is allowed to stand over night—that is, for twelve or fifteen hours. It is then filtered through paper until it comes through perfectly bright. The above quantities yield about seven ounces of product. It has a light sherry-brown color, a faint sweetish taste, and the odor of beerwort. It has a specific gravity of 1·025, and is nearly neutral. It is rich in diastase. Its chief solid constituent is maltose. It contains albumen. It is very prone to fermentation, but this can be prevented by adding a few drops of chloroform and keeping it in a well-corked bottle. Malt preparations should not be administered *after* a meal, but during its progress, and in one- or two-dessertspoonful doses, diluted with water or milk. Starchy food may be *predigested* for the use of infants by using the standard malt-infusion in the following way: A suitable gruel is prepared from wheat or other flour, or from oatmeal, groats, pearl barley, arrowroot, or any other farina. The gruel may be made with water alone, or with the addition of milk or some kind of meat-broth. It should be well boiled, and strained to separate the lumps. We must be sure that the gruel is sufficiently cool to be borne in the mouth before the malt-infusion is added. One tablespoonful, well mixed with the gruel, is sufficient to digest half a pint. In a few minutes the gruel becomes thin from the conversion of the starch, and the food is ready for use. The maltose has very little sweetening power, and gruel thus digested is changed very little in taste. The malt extracts are less suited than malt-infusion for the predigestion of starch.

22. Typhoid fever is not rare either in infancy or childhood. You will see a child, perhaps one, two, three, four, five, six years of age, in whom simple changes are found by the attendants, something like the following. It is noticed that in the afternoon the child becomes restless, perhaps is slightly flushed about the face; has a slight perspiration now and then, and from the appearance of the face it may be inferred there is a little headache; perhaps that is all, except that the child wants to drink considerably in the afternoon. The next morning the baby seems to be all right, but in the afternoon the same symptoms return, and so the case goes on for a week. Finally, the parents become accustomed to such a trifling sickness, wait another week or two, and the child again begins to eat, and soon is completely well. Such cases are not very infrequent. If the physician is called when the child has such symptoms, when he takes the temperature it will be found in the afternoon as high, perhaps, as 102° or 103° F. If seen in the morning, when the child is apparently perfectly well, the temperature, instead of being 100° in the rectum, will perhaps be 100·5° or 101° F. As you watch such a case from day to day, you may find no special increase of temperature, and the child recovers, as a rule, within two or three weeks. Sometimes, however, the disease pursues a more regular course, and may last four or six weeks. In other cases, in addition to the above symptoms, there may be diarrhœa at some time in the course of the disease, which may be attributed to teething, cold, or some other cause. Occasionally there is a little pain over the abdomen, and slight enlargement of the spleen. There may be bronchial catarrh. The principal anatomical lesions which are found in typhoid fever in the adult are in part or entirely absent in typhoid fever as it occurs in the child. There may be a little swelling of the spleen, slight tympanites, a few ulcers in Peyer's patches, a few spots of roseola, a slight diarrhœa, *or every one of these symptoms may be absent.* The disease is found in the young very frequently; and even in the new-born, but such cases are rare. The mildness of the symptoms of the disease in children is due to the fact that the glands in the intestinal tract, and throughout the body, are but slightly developed in infants. Peyer's patches are small and few in number, and consequently there can be but slight inflammation, ulceration, etc. Gerhardt's opinion is, that the poison of typhoid fever is introduced into the body through the respiratory or digestive organs, more frequently through the latter by means of drinking-water. Babies and little children drink but little water, and that has generally been boiled sufficiently to destroy any infecting material it may contain. Thus infection is less serious in infants than in adults, hence the fever is mild. The complications are bronchial catarrh and broncho-pneumonia, the latter frequently very severe. Another complication which may appear is meningeal hyperæmia, which is dangerous, and, as a rule, is developed with high temperature. Diarrhœa is not a frequent complication. As a rule, in most of the cases of typhoid fever occurring in children, the disease is mild, but few cases terminating fatally. In most cases it is the broncho-pneumonia, or high temperature, which is dangerous. The prognosis must be guarded in those cases in which all the symptoms of adult typhoid fever are developed. Fever must be reduced by the use of cold water, but it must be employed with caution, and not be carried too far. Quinine, to reduce the temperature, should be given in large doses—eight, ten, or fifteen grains daily, in one or two doses. If the temperature is very high, from twelve to sixteen grains may be given in one dose, and in solution. Salicylic acid and salicylate of soda, are recommended for the same purpose. Digitalis invigorates the heart's action. Camphor is an excellent stimulant, in daily quantity of from two to ten grains or more. Musk is also a powerful stimulant. To a child two years old, in collapse, never give less than one or two grains at a dose, and repeat it every hour; or in such cases hypodermic injections of ether, brandy or alcohol, or camphor, in not too strong a solution, with ether or brandy. In regard to hæmorrhage from the bowels, opium, in moderate amount, and alum, with an ice-bag constantly over the ileo-cœcal valve, was used by the author in the case of a boy six years of age. Food must be liquid, and in sufficient amount, but the digestive organs must not be overloaded.

23. The infant, pale, emaciated, scrofulous-looking, was admitted in a semi-comatose condition. Had a severe cough, and marked dullness of the right side of the chest, but a thorough examination of the pulmonary organs was not made on account of the child's condition. The whole right side, including the face, was paralyzed. There were clonic twitchings of the paralyzed side, especially of the arms and face, at intervals. The left pupil was dilated. Sensibility of the skin was lost on the right side. Spasms on both sides of the body before death. The child died two days after admission. No history of a fall upon the head was obtained. At the autopsy the left [right?] pleural cavity was filled with pus. Two large, irregularly shaped, and recent, effusions of blood were found beneath the pia mater on the surface of both hemispheres, in the frontal and parietal regions, one fourth of an inch in thickness. The cerebral substance in the neighborhood was discolored, broken up, and infiltrated with blood and serum. The lateral ventricles contained each about half a drachm of clear serum. The base and remaining portions of the brain were normal. The cause of the hæmorrhage was not apparent, there being no gross appearance of disease or rupture of the cerebral vessels.

QUARTERLY REPORT ON VENEREAL AND GENITO-URINARY DISEASES.

No. I.

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1. Zeissl.—Zur Therapie des Trippers der männlichen Harnröhre. "Wien. med. Wochenschr.," Sept. 20 and 27, Oct. 4, 1879.
2. Le Dentu.—Des rétrécissements de l'urèthre. "Gaz. des Hôp.," Dec. 4, 1879.
3. Guyon.—Sur le traitement de l'hydrocèle. "Le Mouvement Médical," Nov. 1, 1879.
4. Gosselin.—Chancre syphilitique et bubon strumeux. "Gaz. des Hôp.," Dec. 27, 1879.
5. Vidal.—Des syphilides cutanées. "Gaz. des Hôp.," Oct. 23, 1879.
6. Hutchinson, J.—Syphilitic herpes. "Lancet," Oct. 25, 1879.
7. Atkinson, I. E.—Some phases of cerebral syphilis. "Va. Med. Monthly," Dec., 1879.
8. McDowall, T. W.—Diffused cerebral syphilis. "Jour. of Mental Science," Jan., 1880.
9. Holm, N.—Nogle Undersogelser angaaende Temperaturen hos Smaaborn med Syfilis. "Hospitals-Tidende," Jan. 14, 1880.
10. Amsler.—Schwefelwasser und Syphilis. "Deutsche med. Wochenschrift," Jan. 3, 1880.

1. Professor Zeissl relies mainly upon injections in the treatment of gonorrhœa. He begins with weak solutions of the metallic salts in the acute stage. He claims that by their use much discomfort will be relieved, and micturition will be rendered freer and less painful. He proposes at the start a solution of permanganate of potash, of the strength of about a quarter of a grain in six ounces of distilled water. This is injected four times a day. Sometimes, he says, every trace of the disease will have disappeared in a week. If at the expiration of this time there is no improvement, the solution is made a little stronger, but he never increases the strength beyond two grains to six ounces (.15 : 200). He approves of changing the injection occasionally, as after prolonged use any injection will lose its effect. When the permanganate fails, he uses a solution of sulphate of zinc of the strength of three or four grains to the

ounce, gradually increased to six grains. This failing, insoluble substances, such as bismuth or kaolin, are injected, suspended in water, in the proportion of a drachm to six ounces (5. : 200). Or he uses ℞. Zinc. sulphat., acetat. plumbi basici sol., āā, 2 grammes, aq. dest. 200 grammes. Powders in suspension will remain in the urethra for a considerable time, till the next urination at least, and sometimes, he states, for two weeks or longer. They are sometimes expelled from the prostatic region during difficult defecation in the form of little granules adhering to the filaments formed by the prostatic secretions and mucus. If the discharge still persist, a bulbous bougie, No. 10 to 14 of Charrière's scale, is oiled and then dipped in bismuth or kaolin, and carried as far as the sphincter vesicæ, where it is allowed to remain for five or ten minutes. The usual astringent injections are also employed. He also uses the following: ℞. Pulv. kaolini, glycerinæ pur., āā, q. s. ut fiant bacilli tenues, longitudine pollicis, No. xx. Four of these, having been well oiled, are introduced each day.

Zeissl's method of examining for stricture is peculiar. For the purpose of diagnosis, an ordinary steel sound (probably not conical) is passed, and while *withdrawing it*, it is claimed, slight irregularities, caused by "granulations, small polypi, etc.," may "even with but little practice" be easily detected. But, for the "inexperienced," the bulbous bougie is recommended as preferable. All this implies totally different views of the adaptations of these instruments to the treatment of stricture from those entertained here. Concerning the value of the endoscope the writer does not speak in terms of great praise. Out of "hundreds of cases" in which he has used it, in only two has he found it of any practical service in the way of treatment. This opinion is interesting in view of the fact that Grünfeld and Auspitz in Vienna, by their recent papers on the subject, and by introducing important modifications of the old instrument of Désormeaux, have given to the endoscope a somewhat revived interest.

To internal medication, or the "indirect" treatment of gonorrhœa, Zeissl evidently attaches only a secondary importance. Sometimes he resorts to the balsamic remedies when injections and other local means have failed. With regard to the old view that these remedies are liable to cause albuminuria, he maintains that it is an error, which originates in the following manner: When, to the urine of persons taking the balsams, nitric or hydrochloric acid is added, a white precipitate is produced, but this deposit redissolves on boiling, and will not be produced at all, if the urine be first acidulated with a little acetic acid. The deposit consists of the balsamic acid, which is separated and precipitated by the acid reagent. Kava-kava, which has been vaunted of late as a remedy for gonorrhœa, has been thoroughly tested by Zeissl, and with entirely negative result. Of twenty cases treated with it, not one was in the least benefited. The only effect noted was that in some of the cases there was an increased secretion of urine.

Much stress is laid upon the affections of the prostate in gonorrhœal disease. Zeissl believes chronic prostatitis to be the usual cause of gleet. In fact, he asserts that chronic gonorrhœa never exists without inflammation and some enlargement (though perhaps not discoverable by palpation) of the prostate. In proof of this, it is alleged that persons who have suffered from frequent claps or from long continued gleet have hypertrophied prostate as early as the thirty-fifth year of age or even earlier—a statement, however, which will not be generally accepted without demur. The treatment which Zeissl recommends for chronic gonorrhœal prostatitis consists in passing sounds or bulbous bougies [*sic*], as large as will enter the meatus, for several successive days. For beginners or those unaccustomed to the use of these instruments, he advises the use of a catheter, so that the operator may be assured by the flow of urine that the instrument is in the bladder and has not made a false passage [which is showing more regard for the surgeon's feelings than for the patient's]. The writer further observes that "when this treatment has been pursued for a few days, the patient will come with the story that sometimes during the day or, as more commonly happens, at night, without erotic dreams or erection, a large quantity of thick, tenacious fluid has escaped from the urethra, leaving a sharply defined grayish stain upon the linen. This is the sign that the chronic prostatitis has run its course." We are utterly at a loss to reconcile this statement with facts of common experience. Cases of chronic prostatitis seldom bear catheterism well. There is always an exaggerated sensibility or erethism about the affected region which renders it extremely intolerant of the operation. From the proximity of the disease to the vesical orifice, any undue violence or irritation is exceedingly apt to awaken all the symptoms of cervical cystitis. Were this the object desired, its attainment could scarcely be more surely accomplished than by the method advised. The occasional passage (perhaps twice a week) of a polished conical sound by a skilled and cautious hand will often in a certain class of cases tend to quell nervous irritability, and by gentle pressure afford a salutary stimulus to the congested blood-vessels; but an indiscriminate use of this means, or its too frequent repetition (especially by an operator who requires a catheter to assure him that he has not made a false route), is a method of treatment to be seriously deprecated.

3. Professor Guyon, at a recent meeting of the Société Chirurgicale, of Paris, suggested a modification of the method of Velpeau for the treatment of hydrocele, which was calculated to avoid the intense sudden pain and shock which occasionally follow the injection of iodine. He had been led to believe that the symptoms (which sometimes resulted in complete syncope) were due to the sudden and forcible pressure of the piston of the syringe. He therefore proposed, instead of using the syringe, to insert a small cannula with a flaring mouth into the vaginal sac, and through it to pour in the solution of iodine. But six cases had been treated in this way, and in none of them were the unpleasant effects produced. In the subsequent discussion, Després remarked that he had employed Velpeau's method in over 220 cases without a single noteworthy accident. M. Le Fort thought the pain was attributable rather to the nature of the liquid injected than to the cause assigned by Guyon. He referred to the use of pure alcohol in place of iodine, as first proposed by Richard. Good results followed its use without producing the severe reaction caused by iodine. He also alluded to the intense pain which attended the method of cauterizing the vaginal sac with nitrate of silver, as performed by Defer, of Metz. A grooved probe was charged with the silver salt, and, having been introduced into the sac through a cannula, was rapidly swept over the inner surface by a few rotary movements of the hand. This method had been employed by Désormeaux for fifteen years, to the exclusion of every other. The effect was painful in the extreme, though the subsequent reaction was seldom excessive, and the recovery was rapid.

At the same session of the Society, M. Polaillon reported good results in the treatment of hydrocele by the injection of a solution of chloride of zinc in the strength of one to ten. One gramme of the solution was thrown into the sac by means of a Pravaz syringe. The advantages claimed for this method were that it did not cause any interference with the patient's ordinary pursuits, gave no pain, and failed only once in eight times.

4. M. Gosselin describes a case in which a suppurating inguinal bubo was associated with a true chancre, presenting a well-marked parchment induration, and eventually followed by constitutional syphilis. The writer is at considerable pains to account for this unusual combination, under the

conviction, apparently, that, according to the generally received rule, it could not have been other than an accidental coincidence. The chancre was the only lesion present, and was of a simple character, presenting no unusual evidences of irritation. Thence the writer concludes that the patient was probably "scrofulous," and that the inguinal abscess was a "bubon strumeux." The only indication that the patient was "scrofulous" mentioned by the writer was, that he afterward had an attack of general eczema, which, being termed "accident de la scrofule," is evidently believed to confirm the diagnosis. We believe that such a strict regard for any rule about syphilis is liable to lead to error. The arbitrary rule that a syphilitic bubo does not suppurate has, at least apparent, exceptions. Suppurating buboes are occasionally associated with the initial lesion of syphilis; and whether they be due to a scrofulous taint, to accidental irritation, or to a mixed chancre, matters not; but to infer from their presence the absence of syphilis would be an unfortunate mistake.

6. Mr. Hutchinson describes a syphilitic eruption upon the side of the chest in a patient at the London Hospital, which was remarkable for its resemblance to herpes zoster. So far as locality, outline, and general appearance were concerned, it might easily have been taken for a case of ordinary shingles. Closer inspection, however, showed certain peculiarities which do not pertain to the simpler affection. There were in certain places distinct and prominent scabs, with decided ulceration and loss of tissue. On inquiry, it was found that the disease had existed in a more or less severe form for nine months. The patient gave a history of syphilis, and still presented evidence of the disease in the shape of a large periosteal node upon the forehead. Mr. Hutchinson said that he was of the opinion that the skin affection was a case of "syphilitic herpes." "Herpes," he remarked further, "is, as is well known, a skin disease of nerve origin. It is produced through some particular nerve influence, and, having regard, therefore, to its origin, we must consider the present case not as an example of common herpes occurring in a syphilitic patient, and so possibly somewhat modified by that disorder, but as a case where the poison of syphilis has caused such nerve changes as to bring about this eruption. The action of syphilis in this case is through the nervous system, and the eruption must be considered as an expression of some syphilitic disturbance of the nerve. Thus we see syphilis as an imitator of typical skin eruptions, and, as I have often stated, it rarely, very rarely, imitates herpes. I consider this eruption to be the syphilitic form of herpes, on the following grounds: The man is syphilitic. The skin disease persists—it has persisted for nine months, with a recurrence of eruption during that time, whereas common herpes tends to spontaneous cure, as do all skin affections that have their origin in the nervous system. It is most rare, too, for common shingles to persist for so long a period as nine months. It is true that it is sometimes very tardy in its disappearance, but, I think, never to such a degree as obtains in this instance. The scar left here and there by the clearing up of the eruption is depressed, distinct and of a dusky-red color. The eruption is at places almost rupial. Finally, there is one feature in the case that makes it—as a case of syphilitic herpes—very peculiar. Syphilitic herpes is nearly always symmetrical on both sides of the body, but in the present instance the eruption appeared on one side only, the right chest being perfectly intact. The case, therefore, must be regarded as extremely unusual."

7. In an analysis of three cases of syphilitic disease of the brain or its membranes, Dr. Atkinson presents some of the phases of cerebral syphilis in a very instructive and lucid manner. In the first case the features of *syphilitic epilepsy* are shown. The patient, who was twenty-six years of age, had a clear history of syphilis. The convulsions were confined to the right upper extremity. They were preceded by intense headache, and were accompanied by decided mental hebetude and evidences of profound general cachexia. In the region of the right parietal bone was a marked prominence, so great as to distort the shape of the cranium, which was the seat of the severe pain, and was very sensitive to pressure. The points by which the character of the disease was recognized were as follows: (1.) The period of life at which the attacks began—essential epilepsy scarcely ever occurring for the first time so late in life. (2.) The partial character of the convulsions, which, in this case, were limited to the right upper extremity. Syphilitic epilepsy very commonly affects only limited portions of the body. (3.) The convulsions began before loss of consciousness, which latter sometimes, indeed, did not take place at all, the patient remaining fully conscious throughout the attack. (4.) There was no epileptic cry. (5.) The convulsions were always preceded by intense headache. (6.) The general condition was marked by a more profound disturbance of health (impairment of mental vigor and signs of general cachexia) than would belong to true epilepsy of such short standing. Furthermore, this condition rapidly improved under anti-syphilitic treatment. It was a singular fact that, while the headache and exterior signs of cranial disease were on the right side, the convulsions also occurred on the right side, whereas they might have been expected to occur on the opposite side. To account for this, the writer supposes that the disease began in the dura mater, and, while on the right side it extended in an outward direction to the cranial bones, on the left side it invaded the cortical substance of the brain.

The second case was a *paralysis of certain cranial nerves*, and was interesting from the fact that the locations of the syphilitic lesions could be pretty accurately determined from the nerves implicated. There was paralysis of the sixth, of the seventh (of the portio dura complete, of the portio mollis partial), and of the trifacial (the motor root of the fifth remaining unaffected). The paralysis was on the right side only. The patient gave a history of syphilis of two years' standing. The trouble began with pain and dimness of vision in the left eye, with slight diplopia. A month later the right side of the face became paralyzed. The right eye could not be closed, and in laughing the face was drawn to the left. The tongue was protruded straight. There was no power of motion in the right cheek, so that food collected between it and the teeth. The muscles of mastication, however, contracted perfectly on both sides. Upon the right side of the tongue there was no sense of taste. The sense of hearing in the right ear was impaired, but not lost. From this state of things the writer infers that the lesion was situated in the dura mater, extending from the posterior clinoid process backward to the seventh nerve, just before it enters the internal auditory meatus. A syphilitic infiltration of the meninges in this situation would involve the trunk of the trigeminus nerve before its division into the three branches. The Gasserian ganglion, which is intimately attached to the dura mater, would be affected, while the motor branch of the fifth, which passes underneath the ganglion, would escape. The sixth nerve penetrates the dura mater within this tract, and the seventh would also be involved. Another point of interest furnished by this case was, that the disease yielded only to unusually large doses of potassium iodide. As much as two drachms three times a day was given at one time, and not until such large doses had been reached was there any marked improvement. Particular attention is called to this circumstance, as showing the necessity of the most energetic and persistent medication in syphilitic disease of the nervous system. Recovery in this case was only partial, the deposit doubtless having become partly organized and incapable of complete removal.

The third case was that of a negress, thirty-four years of age, who had probably contracted syphilis from her husband some twelve years before. She was suddenly seized during the night with convulsions, which lasted for several hours. She remained unconscious for three days. On the recovery of consciousness, the whole right side was found to be paralyzed, and there was complete loss of the power of speech. In two weeks the muscular power began to return, and was ultimately regained entirely, but the speech remained impaired. A few words came at her command, but there was very marked verbal amnesia, and the mental vigor was generally impaired. She was able, however, to attend to her ordinary household duties. This was the condition after two years. Under anti-syphilitic treatment the mental condition improved, and, though the patient was yet unable to converse, the aphasia was somewhat less complete than before. In this case the writer refers the source of trouble to the left middle cerebral artery. Both the aphasia and the right-sided paralysis pointed to a lesion of the left side of the brain, while the former symptom rendered it possible to locate the seat of the lesion still more precisely. A gummy tumor occupying the region in which the faculty of language resides would be less likely to cause the sudden onset of symptoms which occurred in this case, but would make its presence apparent in a more gradual manner. It was more probable, the writer maintains, that disease of the middle cerebral artery gave rise to stenosis of that vessel, followed by cerebral anæmia and softening. Hughlings Jackson has declared that the lesion producing aphasia is most commonly due to embolism of the left middle cerebral artery, in consequence of valvular disease of the heart. But, as Atkinson remarks, "it matters not whence comes the cause of the arterial obstruction," and, after Heubner's observations on endarteritis of the cerebral vessels, it is allowable to ascribe the condition of the artery in this case to a purely syphilitic process.

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Letters to the Editor.

The Pathology of Dropsy.

To the Editor of the New York Medical Journal.

Sir: If we compare the views on this subject as given in books written fifty years ago with the opinions of the present day, we find the greatest imaginable disparity. Dropsy is generally defined by modern writers as a condition which consists in an accumulation of fluid which has escaped from the blood-vessels into the areolar tissue or into the serous cavities, and the pathological conditions producing it are: an overdistention of the vessels, a relaxed state of the tissues and vessels, watery blood deficient in albumen, deficiency in the power of absorption of the lymphatics, and a withdrawal of nervous influence.

Attention has of late been called to the probability of many effusions being caused by a paralysis of the vaso-motor nerves. These nerves no longer responding to the impressions made upon them, the blood-vessels remain dilated, and the watery portion of the blood exudes into the surrounding tissues. The question here arises as to the difference between the watery exudations in diarrhœa and cholera, and the effusions of the so-called dropsies. If we take the position that the exudations attending cholera and diarrhœa are also caused by some poison paralyzing the vaso-motor nerves, thus bringing about a dilatation of the blood-vessels and a consequent exudation of the watery elements of the blood, we should naturally expect to find the chemical constituents of these exudations similar to those of dropsical effusions; and I think a careful comparison will reveal a marked resemblance between them. Both the exudations of cholera and the effusions of dropsies are closely allied to the serum of the blood—both consist of water holding in solution alkaline and earthy salts, especially the chlorides. The specific gravity of each is from 1·008 to 1·014, the fluid of the choleraic exudation being analyzed when the rice sediment has been separated from it. Indeed the sediment seems to be the chief difference in the two fluids.

I do not assert that in all cases of dropsy a morbific poison has paralyzed the vaso-motor nerves, but I am led to inquire if this cause may not assume an importance, in the elucidation of the pathology of dropsy, greater than has been assigned to it. Physicians who use electricity as an agent in the cure of diarrhœa and cholera can attest its wonderful efficacy. Attention was called to the great value of galvanism in these diseases as far back as the year 1854. The current seems to act at once upon the vaso-motor nerves, causing the blood-vessels to contract and send the blood steadily and firmly on its way, thus preventing exudation into the intestines. Dropsical affections seem to warrant the same method of treatment, and the use of both the electro-magnetic and the galvanic current is accomplishing more for these difficulties than any other agent. I do not hesitate to affirm that the time is not far distant when the excito-motors will be the popular remedial agents in dropsy. I only offer these thoughts in the hope that they may call forth articles from those who are more competent to elucidate the pathology of dropsy.

A. K. Scott, M. D., *Cleveland, Ohio.*

Miscellany.

Floating Kidneys in Children.—In the "Hospitals-Tidende," Nov. 26, 1879, Professor Hirschsprung, of Copenhagen, discusses the diagnosis and etiology of floating kidneys in children, and reports two cases occurring in his own experience. The one was in a thin, anæmic boy of seven years, who had complained for some time of pain in the right hypochondrium. All the bodily functions seemed to be properly performed, and the pain was not dependent on any condition of the intestines. A careful examination showed on the right side, between the twelfth rib and the crest of the ilium, a tumor, somewhat concealed beneath the ribs anteriorly. The boy was chloroformed, and then the tumor appeared below the ribs, and could be moved up and down. The left kidney was in its proper place, and immovable. The second case was in a boy of eight years. For a number of years he had been obliged to rise several times in the night to micturate. He had always been thin and puny, and of late had had frequent attacks of vomiting. The abdomen was somewhat retracted, soft, and rather tender in the epigastrium. Under the lower border of the eighth rib was a something which resisted pressure. Pressure in the lumbar region, under the last rib, pushed this tumor forward, upward, and downward. When the child was chloroformed, the tumor was seen to consist of two parts, and was recognized as the right kidney, much enlarged and freely movable. The left kidney was in its proper place and fixed. Hirschsprung, in commenting on these cases, thinks that a demonstrable swelling beneath the border of the rib, especially on the right side, of the consistence and shape of the kidney, which can easily be pushed upward toward the normal position of the kidney, and is freely movable forward and backward between the hands, can not be mistaken for anything else. Both of his cases, as well as the three cases of Steiner, occurred on the right side. Three of the five cases were in boys. In none of the five was there any demonstrable cause. Hirschsprung refers to the paroxysmal pain, which comes on without any exciting cause, lasts a variable time, and then slowly subsides. His second case was complicated with ileus.

Congenital Hernia of the Lung.—In the "Hospitals-Tidende," November 26, 1879, Professor Hirschsprung reports a case of this rare anomaly. A female child, eight months old, was born healthy, but from the tenth week became sickly, and developed a chronic cough. Three weeks before Professor Hirschsprung saw her, the mother observed a tumor under the right clavicle, which was small at first, but increased somewhat rapidly in size, while at times it entirely disappeared. The cough was constant and paroxysmal, and most violent at night. There were no rachitic symptoms. In the upper part of the chest, on the right side, was a tumor covered by the skin, as large as two walnuts, just below the clavicle. When the child cried, the tumor became considerably larger, assumed an irregularly lobulated shape, and seemed to be in two parts: a larger, deeper tumor, and a smaller one, lying nearer the median line, and projecting above the clavicle about five centimetres. The tumor occupied the entire space between the clavicle and the fourth rib. It was soft and resonant on percussion. Both inspiratory and expiratory murmurs were heard over it very sharply. The tumor yielded somewhat to compression if the child was quiet. The larger of the two swellings came from the second intercostal space. The ribs seemed somewhat widely separated, and their opposite margins were excavated, which was also the case with the surface of the second rib. The smaller swelling came from between the first and second ribs, nearer the median line. At a subsequent visit, three weeks later, after the constant wearing of a peculiar kind of retentive apparatus, the patient's general condition was improved. The hernia was less in size, and the cough had diminished. Two weeks later the hernia had subsided very markedly, and the cough had almost entirely ceased. When the child cried, the skin was observed to be drawn in over the two spots where the two herniæ had existed. The openings in the intercostal spaces were felt unchanged.

The Medical Society of the State of New York.—The seventy-fourth annual meeting of the Society was held at Albany, February 3, 4, and 5, 1880. The following summary of the proceedings is condensed from "The Medical Record" of February 14th. ═══ The President, Dr. Henry D. Didama, of Syracuse, in his inaugural address, urged the adoption of some uniform plan for bringing about a higher standard of medical education. He recommended a modification of the law preventing physicians from divulging information derived from patients—gross injustice sometimes resulting as the law now stood. It would be well, too, he thought, if some law were enacted for the protection of medical men against malicious prosecution for malpractice; the plaintiff should be required to give bail for costs. ═══ In his annual address, the President favored the formation of a State Board of Health; and recommended the following features of a plan for raising the standard of medical education: (1) All persons wishing to enter a medical school must have such qualifications as were required for admission into the literary colleges; (2) a complete graded system; (3) an extension of the course of instruction to at least three terms of nine months each; (4) constant attendance upon lectures, weekly oral examinations, and monthly written ones; (5) compulsory work in anatomy, chemistry, histology, and pathology; (6) advancement in grade only after satisfactory examinations; (7) the final examination to be conducted by an independent Board appointed by the Regents of the University. ═══ The following papers were read: *The Relations between Imperfect Action of the Ocular Muscles and Functional Nervous Diseases*, by Dr. George T. Stevens, of Albany; *Forced Alimentation*, by Dr. Alexander Hutchins, of Brooklyn; *Rectal Alimentation*, by Dr. W. W. Potter, of Batavia; *Foreign Bodies in the Eye*, by Dr. Charles S. Bull, of New York; *Perityphlitis*, by Dr. W. C. Wey, of Elmira; *Typhlitis and Perityphlitis*, by Dr. Vanderveer, of Albany; *The Evil Consequences of Neglected Cold in the Head*, by Dr. D. B. St. John Roosa, of New York; *The Management of Infantile Eczema*, by Dr. L. D. Bulkley, of New York; *Refracture in correcting Deformities*, by Dr. C. C. F. Gay, of Buffalo; *Dr. Thomas Keith and Ovariotomy*, by Dr. J. Marion Sims, of New York; *Hyoscyamus in the Treatment of the Insane*, by Dr. John P. Gray, of Utica; *Therapeutical Notes*, by Dr. A. Jacobi, of New York; *Rotary Lateral Curvature of the Spine and the Plaster-of-Paris Jacket*, by Dr. Lewis A. Sayre, of New York; *Modification of the Plaster-of-Paris Jacket*, by Dr. Henry Foord, of Cazenovia; *New Treatment of Empyema*, by Dr. A. M. Phelps, of Chautauqua; *Galloping Syphilis*, by Dr. F. R. Sturgis, of New York; *Marsden's Treatment of Cancer*, by Dr. Daniel Lewis, of New York; *Injurious Effects of Retained Lachrymal Secretion*, by Dr. J. S. Prout, of Brooklyn; *On Hygiene*, by Dr. E. M. Moore, of Rochester; *The Treatment of Vascular Nævus*, by Dr. G. H. Fox, of New York; *Zymotic Diseases*, by Dr. J. C. Peters, of New York; *Subperiosteal Resection of the Shaft of the Humerus, with Reproduction of the Bone*, by Dr. G. F. Shrady, of New York; *Mercurials in Congestion and Subacute Inflammation of the Duodenum*, by Dr. E. M. Chapman, of Brooklyn; *Caries of the Ankle-joint in Children*, by Dr. V. P. Gibney, of New York; *Colles's Fracture*, by Dr. E. M. Moore, of Rochester; *Certain Unusual Deformities of the Fingers and Toes*, by Dr. A. C. Post, of New York; *Cystorrhagia*, by Dr. J. W. S. Gouley, of New York; *A New Method of Treating Deformities of the Nose*, by Dr. R. F. Weir, of New York. ═══ The following were read by title: *Lunacy Reform*, by Dr. A. McL. Hamilton, of New York; *Domestic Pestilence*, by Dr. Elisha Harris, of New York; *Case of Successful Removal of a Piece of Steel from the Vitreous*, by Dr. J. S. Prout, of Brooklyn; *The Care of the Sick Poor*, by Dr. E. Hutchinson, of Utica; *Cerebral Thrombosis following Operations*, by Dr. T. H. Squire, of Elmira; *Physiology of Opium Poisoning*, by Dr. N. Niverson, of Burdette; *School Hygiene*, by Dr. H. Jewett, of Canandaigua; *Endemic Pleuro-Pneumonia in New York in the Last Twelve Years*, by Dr. J. R. Leaming, of New York; *A Case of Diaphragmatic Hernia*, by Dr. E. D. Ferguson, of Troy; *Tapping the Abdomen*, by Dr. F. Hyde, of Cortlandt; *Pathology and Anatomy of the Spinal Cord*, by Dr. J. C. Shaw, of Brooklyn; *Veratrum Viride in Pneumonia and Rheumatism*, by Dr. W. B. Alley, of Nunda. ═══ On motion of Dr. A. Jacobi, who read a communication relating to the *Protection of Infancy and Childhood*, it was *Resolved*, That the President appoint a committee, consisting of five members, to coöperate with the "Society for the Prevention of Cruelty to Children" in all things pertaining to the physical and moral welfare and the safety of infants and children, to report at the next annual meeting. The President appointed Drs. A. Jacobi, S. O. Van der Poel, E. M. Moore, J. P. White, and J. C. Hutchinson as such committee. ═══ Dr. John C. Dalton presented the subject of *vivisection* and a memorial addressed to the Legislature of New York, which was unanimously adopted. He also introduced a resolution providing for a special committee, composed of permanent members of the Society, to be known as the Committee on Experimental Medicine, which should be empowered and instructed to take charge of resolutions adopted by the Society in 1867, 1875, and 1880, and present them to the Legislature whenever it was deemed advisable by the committee so to do. The resolution was adopted and a committee appointed, consisting of Drs. James R. Wood, E. M. Moore, James P. White, Geo. J. Fisher, T. H. Squire, S. O. Van der Poel, Willard Parker, J. C. Hutchison, H. D. Didama, and N. C. Husted. ═══ Dr. Jas. P. White, of Buffalo, introduced the following resolution: *Resolved*, That the Committee on Experimental Medicine be empowered to associate with themselves any additional members from state or county medical societies they may desire, in order to facilitate the action of the committee, and also to adopt such other measures as they may deem expedient in the discharge of their duties and the furtherance of their work. Adopted. ═══ Dr. F. C. Curtis, of Albany, made *suggestions regarding impartiality in the examination of candidates for diplomas.* The profession, as a matter of self-protection, had a right to say what should be the qualification of those who sought entrance into it. He recommended that medical schools be requested to resign their chartered right to confer degrees in medicine, and vest that right in the Board of Regents constituting the University of New York. ═══ Dr. L. D. Bulkley, of New York, introduced a plan by which the business of the Society could be largely transacted, and thus time saved for scientific purposes. It was referred to the Committee on By-Laws. ═══ Dr. Chas. H. Porter, of Albany, Treasurer, presented his report, which was accepted and referred to an auditing committee. A detailed report was made of the receipts and deficiencies in connection with the publication of the Transactions from the year 1874 to the year 1879, inclusive, and one reason for an apparent deficiency for the publication of the Transactions for 1879 arose from the fact that the *Medical Society of the County of New York* had not yet sent in its order nor paid the amount of its assessment. Dr. D. B. St. John Roosa, of New York, said: "Mr. President: I wish to make an explanation as showing pretty well the reason why the Medical Society of the County of New York appears this morning as not having ordered its quota of Transactions, and I wish these facts to go upon record. I have no official connection with the Medical Society of the County of New York, but, as a member of the State Medical Society, I was very much interested to find out whether it was true or not that there was no kind of demand for the volumes of Transactions of the Medical Society of the State. I found that the Comitia Minora of that society had agreed upon a resolution, the details of which I can not remember, but the gist of it was that the Medical Society of the County of New York should refuse to take any more volumes of the Transactions, because it was an illegal action to tax them for the books. As soon as I heard of this proposition of the Comitia Minora, I went into the Society, as some of the gentlemen upon this floor will testify, and brought the question to an issue, in the month of October, as to whether or not the Medical Society of the County of New York proposed to pay its assessment and take its volumes of Transactions; and I took opportunity, at the same time, to make the statement that no facilities were given to the members of the County Society to see the Transactions of the State Society. The County

Society at that time, by a large vote—the ayes and nays being called for—decided to pay this amount, and the understanding was that the payment should be made at once; but it has not been done, despite this record, and the Society, through its officers, so far as we know, has declined to order that the amount should be paid, and that in the face of the expressed will of the Society. Then, at a meeting held on the Monday evening preceding this meeting, a resolution was introduced from the Comitia Minora, stating the so-called facts as regards the funds and the legality of the taxation by the State Society, protesting against such assessment; and that resolution was, by an overwhelming vote at a large meeting, laid upon the table, and yet, to my surprise, I come to Albany and find that the Transactions for 1879 have not been ordered, and, worse than that, that they have not been paid for." ═══ Dr. Dimon, of Cayuga County, reported upon the resolution adopted at the annual meeting for 1879, regarding the raising of a *roll of honor*, upon which should be recorded the names of those who lost their lives in the service of their country or in the discharge of their professional duties. He suggested that the names of those who have made useful discoveries either in medicine or surgery, all such names being referred to the Committee of Examination, should also be added to such a roll. On motion by Dr. Squibb, the report was accepted and adopted, with the amendment that the words "The Committee" be substituted for the words "The Secretary," and that the committee be continued. ═══ The following *officers* were elected: *President*, Dr. Wm. H. Bailey, of Albany; *Vice President*, Dr. A. Jacobi, of New York; *Secretary*, Dr. Wm. Manlius Smith, of Allegany County; *Treasurer*, Dr. C. H. Porter, of Albany; *Censors, Southern District*, Drs. J. W. S. Gouley, C. R. Agnew, and Austin Flint, of New York; *Eastern District*, Drs. Ed. D. Ferguson, M. H. Burton, and W. S. Cooper, of Troy; *Middle District*, Drs. Alonzo Churchill, S. G. Wolcott, and J. K. Chamberlayne, of Utica; *Western District*, Drs. Thos. F. Rochester and Henry Lapp, of Buffalo; *Committee of Ethics*, Drs. Thos. Hun, of Albany, E. M. Moore, of Rochester, and C. R. Agnew, of New York; *Committee of Publication*, Drs. Wm. Manlius Smith, H. D. Didama, of Syracuse, and Chas. H. Porter, of Albany; *Committee on By-Laws*, Drs. Wm. C. Wey, of Elmira, Alex. Hutchins, of Brooklyn, and C. A. Robertson, of Albany; *Committee of Arrangements*, Drs. S. B. Ward, F. C. Curtis, and J. S. Mosher, of Albany; *Committee on Prize Essays*, Drs. E. M. Moore, of Rochester, T. F. Rochester, of Buffalo, and W. S. Ely, of Rochester; *Committee on Hygiene*, Drs. E. V. Stoddard, of Rochester, D. Guernsey, of Amenia, Jacob S. Mosher, of Albany, J. G. Orton, of Binghamton, C. R. Agnew, of New York, E. Hutchinson, of Utica, and Harvey Jewett, of Canandaigua; *Committee on Legislation*, Drs. H. G. Piffard, of New York, Alex. Hutchins, of Brooklyn, and A. Vanderveer, of Albany. ═══ The following *Permanent Members* were elected: *First District*, Drs. C. Henry King, of Richmond Co., R. M. Wycoff, of Kings Co., and H. G. Piffard, R. F. Weir, and H. Knapp, of New York Co.; *Second District*, Drs. R. K. Tuthill, of Dutchess Co., and J. O. Polhemus, of Rockland Co.; *Third District*, Drs. D. V. O'Leary, of Albany Co., and F. S. Greene, of Clinton Co.; *Fourth District*, Drs. P. R. Furbeck, of Fulton Co., and E. M. Lyon, of Clinton Co.; *Fifth District*, Dr. Ira H. Abell, of Jefferson Co.; *Sixth District*, Drs. C. H. Heaton, of Tioga Co., and H. R. Ainsworth, of Steuben Co.; *Seventh District*, Dr. M. D. Benedict, of Onondaga Co.; *Eighth District*, Drs. Jabez Allen, of Erie Co., and E. V. Stoddard, of Monroe Co. ═══ Drs. John S. Billings and Joseph B. Brown, U. S. Army, and Mr. W. F. Teevan, of London, Eng., were made *Honorary Members;* and Dr. William Farr, of London, Eng., Dr. T. J. Turner, U. S. Navy, and Dr. Walter

Carpenter, of Burlington, Vt., were declared eligible to honorary membership. ═══ The following *Delegates* were elected: *To the Massachusetts Medical Society*, Drs. A. Vanderveer, of Albany Co., J. V. Kendall, of Onondaga Co., and Lewis H. White, of Dutchess Co.; *To the Medical Society of the State of New Jersey*, Drs. J. C. Hutchinson, of Kings Co., S. O. Van der Poel, of Albany Co., R. Newman, of New York; *To the Vermont State Medical Society*, Drs. H. B. Allen and D. S. Kellogg, of Onondaga Co., and G. C. Dodge, of Clinton Co.; *To the Indiana Medical Society*, Dr. J. S. Bailey, of Albany; *To the Kansas State Medical Society*, Dr. Conant Sawyer, of Essex Co.; *To the American Medical Association*, Drs. D. B. St. John Roosa, J. W. S. Gouley, John H. Hinton, of New York; J. C. Hutchison, of Brooklyn; C. C. F. Gay, of Buffalo; E. M. Lyons, of Clinton Co.; Theo. Dimon, of Cayuga Co.; J. V. Kendall, of Onondaga Co.; P. R. H. Sawyer, of Westchester Co.; W. Govan, of Rockland Co.; E. R. Squibb, of Brooklyn; E. D. Ferguson, of Troy; N. L. Snow, of Albany; C. S. Nichols, of Troy; B. F. Sherman, of St. Lawrence Co.; E. H. Parker, of Dutchess Co.; J. M. Bigelow, of Albany; H. R. Ainsworth, of Steuben Co.; C. H. Heaton, of Tioga Co.; T. B. Reynolds, H. S. Crandall, of Madison Co.; Darwin Colvin, of Wayne Co.; J. Kneeland, A. J. Dallas, and J. S. Dunlap, of Onondaga Co.; H. C. Hendricks, of Cortlandt Co.; William Oliver, of Yates Co.; Isaac Parsons, of Onondaga Co.; and H. N. Porter, of Oneida Co. The President and Secretary were empowered to fill all vacancies.

NEW JOURNALS.—"The American Monthly Microscopical Journal," edited and published, in New York, by Romyn Hitchcock, F. R. M. S., is an octavo of twenty pages. Surgeon J. J. Woodward, U. S. Army, contributes a "Memorandum on the Amplifiers of Zeiss," with this suggestive foot-note: "This memorandum is part of a paper sent a short time since to the Royal Microscopical Society. I have, however, been informed by the Secretary that the Council of that Society determined 'not to publish that part of it which deals with Tolles and Zeiss, as the latter will want to reply,' and so on. I regret this decision the more because there appears to have been no hesitation on the part of the Society to publish, in the paper referred to in the text, a comparison between certain objectives of Zeiss and Tolles, very much to the favor of the former; and I am unwilling to think that an American maker must not be praised in England, even for so small a matter as an amplifier." ═══ "The Indiana Medical Reporter" is a monthly journal of forty-eight pages, published at Evansville, and edited by Dr. A. M. Owen, Dr. J. E. Harper, and Dr. B. F. McCoy, who count upon the success of their venture because "Evansville, with a population of about 50,000, is the center of a large and richly settled region, which has a sufficient number of scientific practitioners within a radius of a hundred miles to support by their contributions a half dozen journals as large as 'The Reporter,' and yet"—strange to say—"not one other is published within its boundaries." ═══ "El Médico y Cirujano Centro-Americano" comes to us from Guatemala. It is a quarto of eight pages (including advertisements), published monthly. The editor, Dr. F. C. Valentine, announces that his collaborators include "todos los médicos y farmacéuticos centro-americanos."

THE AMERICAN MEDICAL ASSOCIATION.—The Committee of Arrangements requests that those gentlemen who intend to present papers at the meeting of the Association will forward to the Secretaries of the respective Sections of the Association, prior to April 25, 1880, short abstracts of the points and conclusions of their articles. The object is, in the words of the Committee, "to so sift and arrange the matter which will be presented as to facilitate the transaction of business and prevent the introduction of papers that may not be considered worthy of the time and consideration of the Association."

The New York Laryngological Society.—The following officers were elected at the recent annual meeting of the Society: Dr. R. P. Lincoln, President; Dr. Louis Elsberg, Vice-President; Dr. W. F. Duncan, Secretary and Treasurer.

Army Intelligence.—*Official List of Changes of Stations and Duties of Officers of the Medical Department of the United States Army, from January 14, 1880, to February 13, 1880.*—Heger, A., Major and Surgeon.—So much of the order as directs him to proceed to San Antonio, Texas, on or before February 1, 1880, is amended to read on or before February 20, 1880. S. O. 19, A. G. O., January 26, 1880. ═══ White, C. B., Major and Surgeon.—His leave of absence on Surgeon's certificate of disability granted him July 24, 1879, extended six months on Surgeon's certificate of disability. S. O. 20, A. G. O., January 27, 1880. ═══ Tremaine, W. S., Captain and Assistant Surgeon.—His extension of leave of absence on Surgeon's certificate of disability of November 11, 1879, further extended twelve months on account of sickness, with permission to go beyond sea. S. O. 18, A. G. O., January 24, 1880. ═══ Taylor, M. K., Captain and Assistant Surgeon.—To repair to Washington, D. C., and settle his accounts with the Treasury Department. On completion of this duty, rejoin his proper station. S. O. 30, A. G. O., February 7, 1880. ═══ De Hanne, J. V., Captain and Assistant Surgeon.—Granted leave of absence until further orders on account of sickness, to take effect February 1, 1880. S. O. 26, A. G. O., February 3, 1880. ═══ McElderry, H., Captain and Assistant Surgeon.—Relieved from duty in Department of the East, to proceed, on or before March 1, 1880, to Fort Omaha, Nebraska, and report in person to Commanding General, Department of the Platte, for assignment to duty. S. O. 29, A. G. O., February 6, 1880. ═══ Byrne, C. B., Captain and Assistant Surgeon.—The leave of absence granted him December 20, 1879, from A. G. O., extended four months. S. O. 27, A. G. O., February 4, 1880. ═══ Hoff, J. V. R., Captain and Assistant Surgeon.—To report in person to Commanding General, Department of the East, for assignment to duty at Fort Monroe, Virginia. S. O. 29, C. S., A. G. O. ═══ Worthington, J. C., First Lieutenant and Assistant Surgeon.—Relieved from duty at Fort Grant, A. T., and assigned to duty at Fort McDowell, A. T. S. O. 4, Department of Arizona, January 8, 1880. ═══ Hall, William R., First Lieutenant and Assistant Surgeon.—The leave of absence granted him December 5, 1879, from Headquarters Department of the Columbia, is extended three months. S. O. 32, A. G. O., February 10, 1880. ═══ Appel, D. M., First Lieutenant and Assistant Surgeon.—So much of the order of December 29, 1879, as relieved him from duty in Department of the Missouri, is revoked. He will report in person to Commanding General, Department of the Missouri, for assignment to duty. S. O. 32, C. S., A. G. O. ═══ Cuningham, T. A., Assistant Surgeon.—(Fort Stevenson, D. T.) Granted leave of absence for one month, with permission to apply for an extension of one month. S. O. 11, Department of Dakota, January 26, 1880.

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A CASE OF GASTROTOMY FOR THE REMOVAL OF A FIBRO-CYST OF THE UTERUS; WITH REMARKS ON THE OPERATION IN GENERAL.

By RICHARD B. MAURY, M. D.,
MEMPHIS, TENNESSEE.

The subject of the history which I am about to relate was a mulatto, who visited me April 2, 1874, for the relief of those symptoms which usually result from the pressure of a large tumor upon the abdominal and pelvic viscera.

She was a vigorous, healthy woman, thirty-two years of age, who had lived all her life under comfortable circumstances, and who had been married for ten years without the occurrence of pregnancy. Menstruation had been normal. The symptoms of which she complained first began to be felt about four years before. Upon examination, she was found to present two tumors. One of them occupied about two thirds of the pelvic cavity. It was hard, painless on pressure, and immovable, and crowded the uterus over to the right side. The other occupied the greater portion of the abdominal cavity, and was most prominent in the left upper portion of the abdomen. Its upper border was about three inches from the edge of the ribs. It was movable, and could be rolled over toward the right side, but the uterus did not participate in its movements. The uterus was scarcely movable at all; its depth was four and a half inches.

Progress of the Case.—Menstruation went on regularly until the following September, when it failed to appear. Pregnancy had occurred. During July and part of August, the hypodermic use of ergot had been resorted to, after the method of Hildebrandt, without appreciable results. Under the influence of pregnancy, the abdominal tumor increased rapidly in size. As the pelvis was nearly filled by a solid tumor, it was evidently impossible for a viable fœtus to pass. Labor was therefore induced prematurely by the introduction of a flexible catheter on December 5th, and after three days she was delivered of a three months child. During pregnancy the tumor had grown so as to reach the margin of the ribs. After delivery it underwent perceptible involution, although it did not return to the size it had just prior to impregnation. From this time the cervix was raised and crowded against the right posterior wall of the pelvis, and it was impossible to bring it into view with a speculum, or to pass the probe. Involution of the uterus went on tardily, and for several months the patient suffered from menorrhagia.

Subsequently to this period, I could not perceive that the tumor increased in size, and, although the patient complained a great deal of almost constant pain in the tumor and of pressure upon the rectum and bladder, her general health was fair, and she was advised to bear as gracefully as possible troubles which she could not get rid of. In June, the circumference of the abdomen at the umbilicus was forty-five inches. In July, 1875, she was attacked with whooping-cough, which, in consequence of the tumor, harassed her very greatly. In August, abdominal dropsy appeared, and with it there was a continuous slight elevation of temperature above the normal standard, and a pulse of 120 to the minute. In consequence of the ascites, there was great displacement of the thoracic organs. The heart's impulse was felt most distinctly in the second and third intercostal spaces, and respiration was so much embarrassed that she suffered orthopnœa. The position of the stomach also was much disturbed, and everything for a time was vomited.

For the relief of these symptoms she was tapped September 30th, and four gallons of clear, straw-colored liquid removed. The tapping was repeated on October 25th, and again on November 15th, the quantity of fluid drawn being, in each instance, about four gallons. At the time of the last tapping there was œdema of the lower limbs, but examination of the urine showed that the kidneys were free from disease.

For more than two months the patient had been confined to bed, and was fast losing ground. The ascitic fluid reaccumulated very rapidly, and she was comfortable for a few days only after being tapped. The only remedy which offered any prospect of relief from suffering, or of life, was the removal of the abdominal tumor. From its mobility, I was convinced that this tumor was attached to the uterus by a comparatively narrow pedicle. The ascites was due to irritation of the peritonæum by the rough movements conveyed to the tumor during the paroxysms of whooping-cough. The situation being explained to the patient and her husband, they both demanded the operation, although they were told that it would probably result fatally.

Operation.—The day fixed for the removal of the tumor was November 20th, five days after the last tapping. At this time her condition was fair. The bowels were moved by mild aperients every day. The skin and kidneys were acting well. The appetite was good, and digestion comfortable. The operation was performed on the day appointed, with the assistance of Drs. Voorhies, Mitchell, Willett, Henning, and Ess.

The patient being etherized, an incision was made in the middle line, commencing five inches above the umbilicus, and extending to the pubes. A large umbilical hernia delayed somewhat the completion of this step in the operation. The peritonæum being opened, ascitic fluid escaped to the amount of about two gallons, and the tumor came into view. It was of a dark-purple color, and was adherent over the upper two thirds of its surface to the abdominal walls, the omentum, and the intestines. It was found to be attached to the left cornu of the uterus by a pedicle two inches long and one inch and a half in diameter. It now became necessary for the removal of the tumor to extend the incision quite up to the ensiform cartilage. The adhesions were detached easily and carefully. In separating the tumor from its attachments, it was found to be exceedingly fragile and easily torn; and free hæmorrhage occurred, covering the intestines, and for a moment hiding them from view. This came from the very vascular surface of the tumor, and soon ceased. The tumor was removed from its bed, and the pedicle was transfixed by a needle carrying as a ligature three strands of saddler's silk, each half being tied about one inch from the uterus. The ends of the ligature were cut close, and the tumor was cut off.

The peritonæum was carefully cleansed by sponging. Its surface was red and inflamed, and large flakes of lymph were floating in the ascitic fluid. The ovaries were healthy, and the pelvis was nearly filled by a solid tumor. The hernial sac was entirely removed, and the abdominal incision was brought together by thirteen silver sutures, which were made to include the peritonæum. Adhesive straps were then applied, a compress of carded cotton was laid over the abdomen, and a flannel bandage adjusted.

The operation required fifty-five minutes for its performance, but some delay was occasioned by violent and repeated efforts at vomiting. In anticipation of the necessity for drainage of the peritoneal cavity, a plug of linen was placed between the two lowest wires which closed the incision. Dr. Thomas's glass tubewould have been used by preference, but the only one on hand had been broken, and could not be replaced in time.

The patient was put to bed in good condition, and, as she complained much of pain, one quarter grain of morphine was given hypodermically. At 6 P. M. the pulse was 120, and the temperature 98° F.

On Sunday, the 21st, morphine, in the same quantity, was required every six hours, for the relief of pain.

A record of the pulse and temperature (the thermometer being placed in the mouth) was kept regularly at the hours of 6 and 10 A. M., and at 2, 6, and 10 P. M.

For the 21st the record was as follows:

6 A. M., P. 125, T. 101°; 10 A. M., P. 120, T. 100°; 2 P. M., P. 125, T. 100°; 6 P. M., P. 120, T. 100°; 10 P. M., P. 124, T. 100·7°.

On the 22d, P. 136, T. 101°; P. 140, T. 100·8°; P. 144, T. 102°; P. 134, T. 102·1°; P. 132, T. 102·3°.

At 11 A. M. the plug was removed, and a half pint of bloody serum, without bad odor, escaped. As the patient was nauseated, and was averse to food, beef essence was given by enema once in eight hours; a few teaspoonfuls of milk and lime-water were also given by the stomach.

On the 23d, P. 150, T. 103·7°; P. 142, T. 103·6°; P. 132, T. 103°; P. 136, T. 102·2°; P. 132, T. 101·3°.

Tongue is very dry; breathing difficult; vomiting of green matter. Enemata of beef essence all retained. As the patient was turned a little on one side, the plug jumped out, and a pint or more of bloody serum, with offensive odor, escaped. The temperature, which in the past twelve hours had risen to 103·6°, at once began to decline, and at 10 P. M. was 101·3°.

On the 24th, P. 120, T. 101°; P. 120, T. 100·8°; P. 138, T. 103·5°; P. 136, T. 100·7°; P. 139, T. 100°.

At noon, seeing the temperature was again rising, the peritonæum was washed out with a solution of salt in warm water, ʒj to the pint, with the addition of sixteen grains of carbolic acid. Although the temperature continued to rise slowly for nearly two hours after the cavity was washed out, it had fallen at 6 P. M. to 100·7°. During the day there was a good deal of vomiting, the breathing was difficult, and morphine was given every six hours hypodermically. The enemata of beef-tea began to disturb the bowels, and were at once discontinued.

On the 25th, P. 138, T. 99·6°; P. 144, T. 99°; P. 150, T. 102°; P. 150, T. 102·8°; P. 150, T. 99·3°.

The discharge being purulent and offensive, and the temperature beginning to rise in the afternoon, the peritonæum was again washed out with the salt and carbolic acid solution, and, in the course of four hours, the temperature fell to 100°. The tongue on this day was very dry. There was great precordial distress, and much pain in the upper part of the abdomen. At 10 P. M. the patient was delirious and sweating heavily.

On the 26th, P. 144, T. 103·3°; P. 140, T. 101·5°; P. 144, T. 100·4°; P. 144, T. 100·8°; P. 138, T. 101·2°.

Patient is delirious, with a very dry tongue. She is taking milk, with lime-water, and beef-essence as freely as the stomach will allow, which is not much. The highest temperature to-day was at 6 A. M. The peritonæum was washed out about 10 A. M. At 2 P. M. the temperature had fallen to 100·4°. There was a slight rise again in the evening.

On the 27th, P. 132, T. 99·8°; P. 132, T. 101°; P. 138, T. 100·3; P. 132, T. 100·8°; P. 132, T. 100·3°.

During the night and this forenoon she has had several small but loose actions from the bowels. For relief of this, twenty grains of bismuth, with laudanum enemata, were administered. The peritonæum was washed out as usual, and *a continuous drainage apparatus* was devised, with a flexible tube, on the principle of a siphon. To-day the discharge from the peritonæum was sero-purulent, and without admixture of blood.

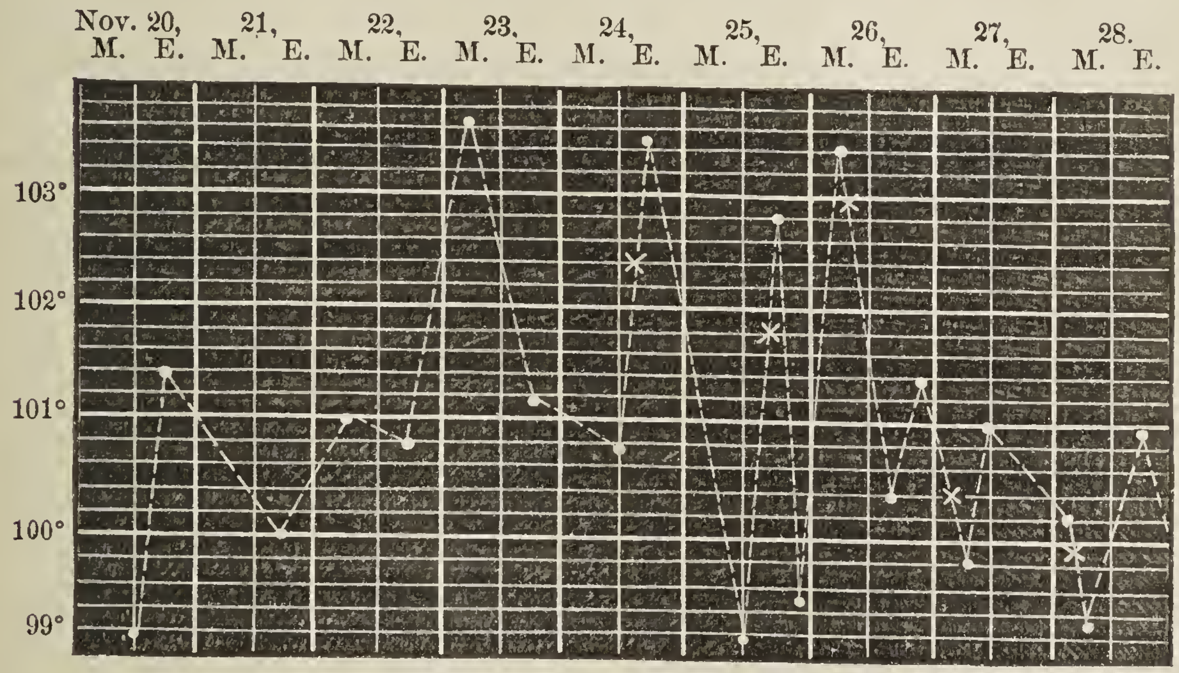
From this time *the drainage was continuous.*

On the 28th, P. 132, T. 99°; P. 136, T. 101·1°; P. 144, T. 100·2°; P. 144, T. 101°; P. 144, T. 99·7°.

During the night the bowels moved five times. There was great tympanitic distention in the region of the stomach and transverse colon. A tablespoonful of brandy was given every hour during the forenoon. Laudanum was given by enema, and bismuth by the stomach. She was greatly exhausted by the diarrhœa.

On the 29th, at 6 A. M., she died.

TEMPERATURE CHART.*



Description of the Tumor.—An examination of the tumor showed that it belonged to the variety known as fibrous body *à géodes.* There was one large cavity at about its center, but nearer the posterior than the anterior surface, with broken and irregular walls. This cavity was of the size of the fœtal head at term, and in its interior there floated a large mass of white fibrous tissue, attached to its walls by three bands. This mass,

* The crosses mark the occasions on which the peritoneal cavity was washed out.

like the walls of the cavity, was white and bloodless, while the external surface of the tumor was very vascular and of a dark-red color. The cavity, or pseudo-cyst, was not discovered until the tumor was removed, when it was accidentally ruptured, and its contents lost. The tumor, when cut into, looked like uterine tissue. Its weight, after rupture of the cyst, and after it was washed and drained of blood, was four pounds.

Autopsy.—The incision through the abdominal wall was firmly united, except between the two lowest sutures, at the point where drainage had been effected. In the peritonæum there was a few ounces of sero-pus. There was evidence of recent but slight peritonitis in the deposit of fibrine upon the intestines. The condition of the pedicle was interesting. There was no gangrenous or sloughing tissue about it. The ligatures were found to be almost perfectly encapsuled by the adhesion of the free margin of the stump to the adjacent surface of the womb. The true pelvis was occupied by a fibrous tumor, of the size of a small cocoanut. This would have necessitated Cæsarean section, had the pregnancy been allowed to go to term. It was situated between the folds of the broad ligament, and had a capsule of dense connective tissue, but had no fibrous attachment to or communication with the uterus. At a point corresponding to the level of the os internum, several blood-vessels passed from the side of the womb to feed the tumor. The left ovary was lying unattached upon the top of the tumor. The uterine cavity was exactly five inches in depth, and embedded in the anterior wall of the uterus was a fibroid, of about the size of a walnut, whose presence had not been suspected during life.

REMARKS UPON THE CASE.—It may be supposed that a subserous fibroid, attached, as this was, by a long and narrow pedicle, would offer better prospects for recovery after gastrotomy than would a tumor so intimately blended with the womb as to involve ablation of that organ itself for its removal. This is, however, not always true. Tumors which have a distinct pedicle are mobile, and their mobility sometimes becomes a cause of peritoneal inflammation, which establishes adhesions between the tumor and surrounding parts, and the operation for their removal is then beset in an extreme degree with the dangers of peritonitis and septicæmia. On the other hand, the fibroid which is thoroughly incorporated with the uterine body may, as a rule, be expected to be free from extensive adhesions, and, thanks to the improvements of Péan, may be removed without very serious difficulties.

In view of the adhesions which existed in the present instance, and the certainty of a reaccumulation of the ascitic fluid, I prepared to make use of intra-peritoneal injections, according to Dr. Peaslee, should symptoms of septicæmia appear. The rapid rise of temperature to 103.7° on the fourth day, the escape of bad-smelling bloody serum from the opening into the abdomen, the very dry tongue, and the great aversion to food were regarded as symptoms due to absorption of poisonous materials into the blood. By means of the flexible catheter and the fountain syringe, the peritonæum was washed out on the fourth, fifth, and sixth days, once in twenty-four hours, with a solution of chloride of sodium ʒj, carbolic acid sixteen grains, and water Oj, at a temperature of 100° F. The patient was always more comfortable after this process, and the temperature would soon begin to fall.

On the seventh day I made use of a plan of drainage which appeared to me to present some advantages over those ordinarily used. This plan may be styled *continuous siphon drainage*, and is as follows: Dr. Thomas's glass tube for abdominal drainage is introduced at the lowest extremity of the incision, and passed down into Douglas's pouch. A flexible rubber tube, having previously been fitted into this, is carried across the patient's body, over the side of the bed, and made to dip into a spittoon containing carbolized fluid. The spittoon is placed upon a stool below the level of the bed. The fountain syringe being attached to this tube, the peritonæum is flooded, the syringe is then detached, the end of the tube lowered, and the peritonæum emptied of fluid. The end of the tube being then placed in the spittoon, drainage goes on continuously, drop by drop, and *fluid is prevented from accumulating in the abdominal cavity.* By this means drainage and washing out of the peritonæum can be accomplished without disturbing the patient at all; drainage is so perfect that washing out may in a great measure be dispensed with. The simple use of a roll of cotton and adhesive plaster secures the flexible tube against displacement. It is a matter of interest to note the difference in the hours at which the daily exacerbations of fever occurred. They are as follows: Tuesday, 6 A. M.; Wednesday, 3 P. M.; Thursday, 6 P. M.; Friday, 6 A. M.; Saturday, 10 A. M.; Sunday, 6 P. M. This great irregularity in the thermometric range is probably one of the features of septicæmia. The diarrhœa, which became uncontrollable toward the close, was considered also as one of the symptoms of septic poisoning.

Remarks upon the Operation.—In order to appreciate the results which have been obtained by this operation, its history may be divided into three periods: The first period extends from 1843, when Charles Clay performed the first operation for the removal of the uterus and ovaries, for a fibrous tumor, to 1863. This period includes fourteen operations of a similar character, with ten deaths, the percentage of recoveries being 28·5. In all of these cases, the true nature of the disease was not discovered until the abdomen was opened, and the operators then saw that removal of the uterus would be necessary to complete the operation.

In 1863—the beginning of the second period—Kœberlé, of Strasbourg, deliberately planned the operation, and prepared beforehand, for the removal of the uterus and ovaries with the tumor. This period extends to 1873, and includes six cases by Kœberlé, nine by Péan, and twenty-seven by other operators, making forty-two cases in all, with twenty-nine deaths, the percentage of recoveries being 30·9. Of Kœberlé's six cases, three died; while, out of the nine operated upon by Péan, all but two recovered, the percentage of recoveries being 77. Péan's remarkable success is due in great measure, it is fair to assume, to his improvements in the instruments used, and to his method of amputating the uterus at the os internum, the cervix being used as a pedicle, and secured externally by the iron wire which is employed to constrict it. Hæmorrhage is by this plan effectually prevented.

The third period comprises a report of cases operated upon in the light of Péan's improvements, and extends from 1873, the date of the appearance of his work on Hystérotomie, to the present time. During this period, I find record of nineteen cases, with only six deaths, the percentage of recoveries being 68·5. I have had neither time nor opportunity to make a thorough investigation of this subject, and am aware that cases have been operated upon, the reports of which have not fallen into my hands.

The reader of Péan's book will be struck by the fact that four of the successful gastrotomies performed by him were in cases of interstitial fibroids. In the opinion of some, these cases might have been treated as submucous fibroids, and the tumor removed through the vagina by enucleation.

Péan remarks that if the tumor does not adhere to the neck, but to the body, of the womb; if the pedicle is broad and deeply situated; if the cervix is normal and not dilated, we should prefer gastrotomy to the plan of Atlee and Baker Brown, who incise the neck, and attack the tumor in its center by making incisions. In this connection, it is interesting to read the remarks of Dr. Alfred Meadows, an authority upon the subject, as they appeared in the "Obstetrical Journal of Great Britain and Ireland" for December, 1875, under the title of "Diagnosis and Treatment of the Curable Forms of Fibroid Tumors of the Uterus." "It will be observed that I have said nothing specially about the treatment of interstitial fibroid tumors when limited to the fundus and body of the uterus, and not invading the cervix uteri. This silence is intentional, and has reference to the title of my paper, which deals only with the curable forms of these growths, for I doubt very much whether interstitial fundal tumors can be so regarded."

Next in order of time, I would quote, as bearing upon this point, the remarks of Dr. Priestley, President of the Obstetrical Society of London, made January 3, 1877. Speaking of the removal of uterine fibroids, he says: "The index of experience, indeed, seems pointing somewhat in favor of abdominal section, rather than operation *per vaginam*, as being more manageable in its after-treatment and giving a better chance of recovery. The experience of Péan, of Kœberlé, of Hegar, of Spencer Wells, and others, indicates a distinct advance in this direction."

Lastly, Dr. T. Gaillard Thomas, in his "Description of a New Instrument for the Detachment of Sessile Uterine Fibroids" ("New York Medical Journal," March, 1877), says: "My impression is that a decided and distinct line should be drawn between the treatment of uterine fibroids existing with a dilated cervical canal and those barricaded by a contracted orifice. . . . I speak only of intra-uterine growths, when I say that they should be divided into two classes, the line of division being the dilatation or non-dilatation of the cervical canal. In the first case, the growth can be reached and generally removed, if the operator have the requisite experience, boldness, and skill. In the second, none of these qualifications can make success secure, or ward off the element of danger."

This clear and emphatic expression of opinion by Dr. Thomas, of New York, and Dr. Meadows, of London, two of the very highest authorities upon this subject, goes to indicate that there is a class of cases of intra-uterine fibroids for which there is at present no safe method of treatment, unless it be by gastrotomy.

Gastrotomy for the treatment of uterine fibroids is an operation which, although in its infancy, has already accomplished much; and which, with the improvements of Péan and others likely to follow soon, has before it a brilliant future.

ON CERTAIN DISEASES OF THE LIVER: AMYLOID DEGENERATION; CARCINOMA; HYDATIDS; HEPATIC ANEURISM; PORTAL THROMBOSIS; SUPPURATIVE PYLEPHLEBITIS; CATARRH OF THE BILE-DUCTS; OCCLUSION OF THE BILIARY PASSAGES; AND BILIARY CALCULI.

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DISEASES OF THE BLOOD-VESSELS OF THE LIVER; ANEURISM OF THE HEPATIC ARTERY; THROMBOSIS OF THE PORTAL VEIN; SUPPURATIVE PYLEPHLEBITIS.

ANEURISM OF THE HEPATIC ARTERY.—The author can add one to the few examples of aneurism of the hepatic artery.

The size of the tumor in the reported cases has varied, but the tumor can not always be felt, or rupture takes place before it has attained sufficient dimensions to be felt through the abdominal parietes. In one instance the liver was displaced by it. Usually, long before the existence of a tumor can be made out, severe pains are experienced in the right hypochondrium. The attacks of pain are at first paroxysmal, and can hardly be distinguished from hepatic colic, but in the further progress of the case there are constant pain and soreness in the right hypochondrium, and paroxysms of severe pain. The pressure of the aneurism on the hepatic plexus is the cause of the early appearance, severity, and persistence of the pain. Jaundice is usually present, due to pressure on the hepatic or common duct, and in the case referred to by the author ascites was the prominent symptom. The interference with the hepatic functions, the constant suffering, etc., cause rapid failure of the vital powers; the flesh wastes, the skin appears earthy or jaundiced, the digestive functions are disordered in consequence of the absence of bile, and ascites may slowly accumulate. Death takes place by rupture and escape of the blood into the peritoneal cavity. In one case (Frerichs) blood was regurgitated by the stomach, and it reached this organ by a circuitous channel; communication by a very small orifice was established between the sac of the aneurism and the gall-bladder, and a small quantity of blood continually passed from the gall-bladder to the duodenum, and thence by retching into the stomach.

Thrombosis of the portal vein is a result of various obstructive conditions, as cirrhosis, chronic atrophy, cancer, and tumors. The symptoms due to the thrombosis are those of obstruction to the portal circulation, and occur rather abruptly in the course of the chronic malady associated with it. The pressure in the initial radicles of the portal vein is suddenly increased, and free transudation of blood occurs along the intestinal mucous membrane, hæmorrhoids form, and a watery diarrhœa takes place. The spleen enlarges, and ascites develops with great rapidity. Efforts toward a compensatory circulation are made by the communicating veins, which suddenly appear enlarged on the surface of the abdomen. The urine becomes scanty and of high specific gravity. The patient presents a very decided cachexia, the strength rapidly fails, and death occurs in a few days or weeks. The obstruction by the thrombus is not always complete, so that an imperfect circulation is maintained. In that case the symptoms will be less formidable and the progress less rapid.

The only remedy which offers any prospect of relief is ammonia, which has the power to dissolve coagula. Unfortunately, the stasis in the portal system so hinders absorption that remedies do not readily enter the blood. As Halfourd, of Australia, has demonstrated the innocuousness of the intravenous injection of ammonia, this expedient should be practiced in such cases. It consists in the injection of one part of aqua ammoniæ to two parts of water into any convenient vein. If, however, there be any movement of blood in the portal, the ammonia should be administered in the form of the carbonate—five grains every three hours. The usual remedies for ascites will be necessary.

Suppurative Inflammation of the Portal Vein, or Suppurative Pylephlebitis.—This is always a secondary disease, and has its origin in suppuration occurring at some point in the distribution of the portal vein. An inflammation occurs in the tunics of the vessel, which become soft and discolored by the presence of a fluid and fibrinous, purulent exudation, and by imbibition of the hæmatine. The intima especially is discolored, brownish, yellowish, or greenish-yellow, and is coated with layers of fibrine and pus. The changes extend to and involve the adventitia. A thrombus forms in the vessel and undergoes characteristic alterations, softens in the center, becomes yellow, the fibrine breaking up into a granular mass, and the hæmoglobulin disintegrating and gradually forming with the rest of the thrombus a purulent-looking fluid. Thrombi form most frequently in the hepatic branches of the portal, and emboli in some cases are deposited in other parts of the liver, and secondary pyæmic abscesses occur in various parts of the body.

Suppurative inflammation of the portal vein is associated with, and is dependent upon, ulcerations in various parts of the intestinal mucous membrane, or suppuration and abscesses in the mesenteric glands, or the inflammation and ulceration following impaction by gall-stones, etc. The symptoms, therefore, succeed to those of the malady which caused it. The initial symptom is pain, and it is felt in the umbilical region, in the iliac region, or in the hypochondrium, according to the branch of the portal implicated; then follows a severe rigor, which, after a period of high temperature, terminates in a profuse sweat. These paroxysms, intermittent in type, are repeated, not in a regular order, but at uncertain intervals. In the interval the temperature is rather subnormal; during the pyrexia the temperature rises to 105° or 106° Fahr., and the sweats are most exhausting. The liver enlarges and is tender, and jaundice appears. The spleen also enlarges, doubtless because of the obstruction in the portal circulation. Usually there is a profuse diarrhœa, the discharges consisting of a reddish, watery, and fetid fluid, sometimes of bilious matter. The abdomen becomes tender, and is much distended; vomiting comes on; the exhausting alvine discharges continue, and hence the powers of life rapidly decline. The secondary deposits excite local distress, and each addition to the area of suppuration increases the hectic fever. Deposits in the brain cause delirium and stupor, but, without these, low, muttering delirium comes on, with a typhoid state, and death occurs in a gradually deepening coma. The fatal result may occur in one week, or may be postponed to six weeks—the average being about three.

The diagnosis must always be a matter of extreme difficulty, and can, indeed, be made only when the cause is clear and all the symptoms appear in their proper relation. It will be impossible in any doubtful case to differentiate between pylephlebitis and abscess of the liver.

The treatment is without utility. While this is true, it is certain, however, that much may be done to relieve pain by the hypodermatic injection of morphia. It is in a high degree probable that large doses of quinia may be very serviceable in checking suppuration, and the free use of alcohol is certainly applicable in the same direction. The combination of morphia and quinia, with the conjoined administration of alcoholic stimulants, offers the best prospect of relief.

DISEASES OF THE BILIARY PASSAGES: CATARRH OF THE BILE-DUCTS.

Definition.—By catarrh of the bile-ducts is meant an inflammation of the mucous membrane, with an increased production of mucus. Very rarely there occurs a croupous inflammation, associated with infectious maladies, as pyæmia, diphtheria, etc.

Cause.—Catarrh of the biliary passages may arise spontaneously from climatic causes or from malarial influence. It occurs, therefore, more frequently in the autumn, when cool nights succeed to warm days, and when malaria is most rife. Malaria may induce jaundice by catarrhal swelling of the bile-ducts, without any febrile disturbance.* Catarrh of the bile-ducts is usually a secondary disease, secondary to duodenal or gastro-intestinal catarrh, which extends by continuity of tissue up the bile-ducts. A variety of causes are concerned in the production of duodenal catarrh—notably, excesses in eating and drinking. Usually the attacks are excited by some article of food which especially disagrees, but a catarrhal state of a chronic kind has preceded the acute attack.

Pathological Anatomy.—More or less extensive hyperæmia is the initial lesion. The common duct is more affected than any other part of the canal-system, but the catarrhal process may extend to and involve the canaliculi. The mucosa is swollen, the more decidedly near the duodenum, and is coated with a tenacious mucus, so that the lumen is much narrowed or obstructed. The mucous secretion of the gall-bladder is increased in amount and mixed with the bile, stored up more abundantly because the obstruction at the outlet existed while the hepatic and cystic ducts were still pervious. The viscid mucus and sero-mucus poured out from the surface of the membrane contains cast-off epithelium, abundant nuclei, and white corpuscles, and the endothelium itself undergoes proliferation. The obstruction below preventing the escape of bile, and the mucus and sero-mucus accumulating by continued production, the ducts above become dilated, and the tissue of the liver presents the usual appearance of bile-staining when there is a biliary stasis. After several days the hyperæmia lessens, and a quantity of dead endothelium is cast off, still more effectually blocking the passage; but the contents of the bile-ducts gradually liquefy, and the lumen is restored to its former dimensions by the escape of these matters into the duodenum. The whole process will occupy several weeks.

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* "Des Affections Paludéennes du Foie," par MM. A. Kelsch et P. L. Kiener, "Arch. de Physiologie normale et pathologique," 1878, pp. 571 *et seq.*

This fortunate solution of the catarrhal process is not always effected. The soft tissue of the liver-parenchyma is exceedingly liable to degenerative changes. Recent researches (Charcot,* Legg †) have demonstrated that mere mechanical blocking of the common duct leads in a short time to fibroid degeneration (increase of the connective tissue, interstitial hepatitis) and atrophy of the gland-cells. It has long been known that persistent attacks of catarrh, or the frequent repetition of them, will lead to changes in the parenchyma; but these late investigations, by demonstrating the readiness with which pathological alterations occur in the hepatic parenchyma, have added much to the pathogenetic importance of catarrh of the bile-ducts. Rarely, isolated portions of the liver remain obstructed, and dilated ducts, surrounded by parenchyma deeply stained with bile and much altered, exist in patches throughout the organ.

Symptoms.—The signs and symptoms indicating the onset of the malady are not the same for all forms. The form due to alternations of temperature at certain seasons commences abruptly with some pain, soreness, and sense of weight in the right hypochondrium; constipation exists, the tongue is coated, and the appetite absent; and there is some feverishness and general *malaise.* There is also much depression of spirits and a feeling of illness, greater than the actual lesions warrant. In from three to five days the eyes become yellow, and icterus, or jaundice, then gradually appears over the whole body. Usually the fever disappears in two or three days, the skin becomes dry and harsh, and the surface cold. The pulse is slow, the action of the heart weak, and the strength depressed. When this form of jaundice is produced by malarial infection, the symptoms will develop more slowly, unless, indeed, the disturbance in the hepatic functions is accompanied by malarial fever—intermittent or remittent.

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* "Leçons sur les Maladies du Foie, des Voies Biliaires et des Reins," Paris, 1877, p. 354.

† "St. Bartholomew's Hospital Reports," vol. ix.; various articles in the British Medical Journal," etc.

The most usual determining cause of catarrhal jaundice is gastro-intestinal, especially duodenal, catarrh. In some subjects a chronic catarrh exists, and but little additional disturbance suffices to close the duct. In others an acute catarrh is brought on by some indigestible food or improper drink. In either case, the patient experiences a good deal of nausea, has a heavily coated tongue, headache, and a somewhat muddy complexion, and there may be more or less fever, or none at all. The jaundice does not appear at once; there must be sufficient time for the extension to the bile-ducts to take place, which will require from one to two weeks. The bile-pigment tints all the tissues of the body, the secretions, and even pathological products, as effusions into the ventricles and thoracic cavity. The urine soon assumes a brownish color, like that of port or black coffee, and is heavily loaded with urates. Some drops of the urine placed on a white porcelain surface, and a little nitric acid made to flow against it, will exhibit the following reaction at the margin where the two fluids come in contact: a greenish tint, quickly followed by blue, violet, to red. This play of colors may not be seen, but bilirubin, where touched by nitric acid, should take on a greenish hue, being converted to biliverdin.

During the febrile stage, if fever has existed at all, the pulse rises; but when jaundice appears, if no fever is present, the action of the heart is slowed and the tension of the vascular system lowered. The pulsations may decline so much as twenty or thirty to the minute. This depression of the circulation is due to the action of the biliary salts on the heart itself, for the same effect is produced when the pneumogastric has been previously divided.

No bile passing into the intestine, certain substances fail to be digested, especially the fats, and the foods present there decompose, and a great quantity of fetid gas is formed. The results, then, of the absence of bile are white, pasty, or grayish-white, or gray, slate-colored stools, having a very offensive smell, and flatulence. The presence of bile in the skin excites in most persons a great deal of unpleasant itching, which may, indeed, be troublesome enough to prevent sleep. The vision is yellow from the presence of bile-pigment in the humors of the eye.

The liver increases in size, and extends a little beyond the margin of the ribs, and the gall-bladder is also sufficiently distended to be felt, in thin persons, projecting beyond the margin of the liver, or be made out by careful percussion. If the gall-bladder partakes in the inflammation, it becomes tender.

Usually in from two to five days after the jaundice appears, the unpleasant symptoms subside—the fever ceases, the tongue cleans, and the appetite returns, and only the jaundice and the torpid state of the intestines remain. In a few days the stools become darker and then normal, the fetid odor disappearing at the same time. The coloration of the tissues and the pigment in the urine continue until the work of elimination is complete, and hence high-colored urine is the final symptom.

Course, Duration, and Termination.—Cases pursuing the ordinary course, having the catarrhal period, the jaundice period, and the period of convalescence, last from three to six weeks, and terminate in complete recovery. Not all cases pursue this favorable course. The resolution may be postponed, and the case assume a chronic character, leading to changes in the hepatic parenchyma, consisting in increase of the connective tissue and an atrophy, largely fatty, of the hepatic cells. The existence of a chronic catarrh of the duodenum invites attacks of acute catarrh involving the ducts, the result being the same—changes in the hepatic parenchyma. Catarrh of the bile-ducts becomes much more important from this point of view.

Diagnosis.—At the beginning, catarrh of the biliary passages may be confounded with the initial symptoms of acute yellow atrophy, but the sex and the condition of pregnancy are so influential in causing the latter, that we have in these etiological factors means of differentiating in two thirds of the cases. The subsequent behavior of the two maladies differs so widely as to eliminate all doubt. When the jaundice appears there is a possibility of confounding it with the jaundice which sometimes comes on in the course of cirrhosis and cancer, but an attentive examination of the history of each, and their course, will prevent error.

Treatment.—This is one of the very few conditions in which mercurials may be prescribed in hepatic diseases, not with the view to increase the outflow of bile, but to allay irritation of the mucous membrane. From $\frac{1}{12}$ grain to $\frac{1}{6}$ grain of calomel, rubbed up with a little sugar, may be administered every four hours for a few days. Simultaneously, whether malaria is or is not an element in the case, two antipyretic doses of quinia (10–15 grains) should be given daily until jaundice appears, and for a few days subsequently to its full development. To maintain free action of the kidneys by salines is highly useful by favoring elimination. The ordinary effervescing powder, or the aperient effervescing powder, if constipation is decided, is well adapted to accomplish the object. The Saratoga waters, or Vichy, or Kissingen, or Carlsbad, may be drunk freely to accomplish the same purpose.

In the chronic cases, with persistent plugging of the bile-ducts, which means also persistent jaundice, the most effective remedy is sodium phosphate in ʒj doses *ter in die*, and kept up until the jaundice declines. This is also the most appropriate and effective remedy in those cases of chronic gastro-duodenal catarrh with occasional attacks of catarrhal jaundice. Recent experimental (Rutherford) and clinical experience has shown the value of euonymin and iridin as cholagogues. Two grains of the former and four of the latter, given at night, and followed by a saline, afford excellent results.

The mineral acids were formerly held in great esteem in the treatment of these hepatic affections, but it is now known that alkalies are more serviceable. The local application of the acid-bath to the right hypochondrium is an excellent counter-irritant, but the difficulty experienced in preventing injury to the clothing is a strong objection to its use.

Careful regulation of the diet is most necessary. Solid food should be withdrawn for the time being, and all fatty, saccharine, and starchy substances also, for these require the action of the bile either for their solution and absorption, or to prevent their decomposition. The most suitable aliments are skimmed milk and beef-juice. The former should be given freely every three hours, and, if the stomach is irritable, a little lime-water should be added. The utility of the milk is twofold—as an aliment and as a diuretic. Bitartrate of potassium lemonade is an excellent diuretic in these cases, to remove the last staining of the bile. As the catarrhal inflammation subsides, the diet may be increased, but it should consist of milk, eggs, fresh meat, fresh fish, and the succulent vegetables.

OCCLUSION OF THE BILIARY PASSAGES.

Causes.—The pressure of tumors, as cancer of the pancreas, aneurism of the hepatic artery, etc., is an exterior cause, the impaction of a calculus, adhesion of opposed surfaces in exudative inflammation, etc., are internal causes, of occlusion of the bile-ducts.

Results of Occlusion.—The mucus formed all along the canals contributes somewhat to the accumulation of fluids when the outlet is closed, but the chief constituent is bile. The neck of the gall-bladder is not unfrequently closed by an impacted calculus, the sac becoming enormously distended with a transparent, faintly greenish fluid, resulting from the transformation of the mucus and of the bile stored up before occlusion. The author has seen one example of occluded orifice of the cystic duct, in which the contents of the gall-bladder consisted of forty-four biliary calculi without any fluid. As the gall-bladder is an organ of convenience and not of necessity, its closure does not disturb the hepatic functions. It forms sometimes—for the secretion of mucus continues—a tumor of considerable size, and pyriform shape, which may be felt projecting from under the liver. Occlusion of the common duct (ductus choledochus) or of the hepatic duct leads to dilatation of the biliary passages and to changes in the structure of the liver. The whole organ is at first enlarged, but it subsequently undergoes atrophy by the pressure, and death ultimately ensues from the blood-poisoning.

BILIARY CALCULI (CHOLELITHIASIS ; GALL-STONES).

Causes.—In the normal state, the bile does not contain any solid constituents. The formation of calculi or concretions is determined by the precipitation of a crystallizable substance from the bile—cholesterine—which is held in solution by glycocholate of soda. The mucus formed in catarrh of the biliary passages effects a decomposition of this compound. It is probable that this result is promoted by changes in the composition of the bile, and that the cholesterine may be in excess, and hence held feebly in its combination. Calculi form more frequently after than before the middle period of life, for then cholesterine becomes more abundant; and they are encountered in the obese, in hearty feeders by preference, and in the sedentary. Females are more liable than males, especially fat women who eat rich food and take no exercise.

Pathological Anatomy.—Cholesterine is the principal constituent of biliary calculi, and exists in the crystalline form chiefly. The actual proportion of this constituent to the others is from 70 to 80 per cent. More or less bile-pigment enters into their formation; also the carbonate of lime and earthy phosphates and carbonates; and a bit of mucus or some foreign body, usually mucus, is the nucleus about which the other materials crystallize or aggregate. Occasionally there is a single concretion of large size, which fills the gall-bladder, but usually they are very numerous—sometimes amounting to five or six hundred. When there is a single gall-stone it is ovoid or globular, to adapt it to the shape of the sac, but, when there are several, they assume the octahedral shape, with smooth facets. They do not always assume regular shapes: some are covered with warty masses; others are leaf-shaped, etc. In color they are brownish or yellowish-brown, but in exceptional instances are found in all colors from white to black. They are very light, the specific gravity varying from 1·500 to 1·800.*

Gall-stones usually contain a nucleus, composed for the most part of mucus, and cholesterine and bile-pigments are deposited in alternating, concentric layers around it. The nucleus is not always in the center, and there may be several nuclei, and hence the arrangement of the layers is irregular, and there may be deposits of earthy matter and pigment, without cholesterine, etc. Gall-stones may be found in any part of the biliary passages. They are rare in the interior of the liver, and they are not often found in the hepatic duct, because of the increasing caliber below, but are found usually and in the largest numbers in the gall-bladder. By pressure the walls are irritated and a catarrh is set up, and also ulcerations of the mucous membrane of considerable depth and extent are induced. The walls of the gall-bladder, excited to frequent expulsive efforts, undergo hypertrophy, and the mucous membrane becomes reticulated. Inflammation of the peritoneal investment is excited, and the remains of exudations and adhesions are usually found. Not unfrequently the mouth of the gall-bladder is occluded by an impacted calculus, or permanently closed by inflammatory adhesions. The gall-stones may be forced down, producing pains in the passage through the cystic duct, or, the mouth of the gall-bladder being closed, they remain and produce no further mischief. Gall-stones may become impacted in the cystic, hepatic, or common duct; inflammation and ulceration, with perforation, result.

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* Thudichum on "Gall-stones," p. 10.

Symptoms.—When gall-stones are free in the biliary passages without obstructing them, they give rise to some pain in the right hypochondrium of an intermittent character, and pains radiating thence to the shoulder, umbilicus, lumbar region, etc. There is present usually nausea, even vomiting, and there may be chills, followed by fever and sweats. These symptoms are due to the irritation of the ducts, without their occlusion. If concretions are impacted in the hepatic duct, there are pains, jaundice, and enlargement of the liver. When calculi escape from the gall-bladder into the cystic duct, if of sufficient size to irritate the mucous membrane and excite spasm, the phenomena of *hepatic colic* ensue.

Sometimes, after a fit of anger, or the receipt of evil tidings, but most frequently in about three hours after a meal, a pain of exceeding violence is suddenly felt at the margin of the liver and in the right portion of the epigastric region. The pain has a boring, burning, lancinating character, and radiates through the abdomen and chest and into the shoulders and back, but the situation of the greatest anguish is in the region of the gall-bladder. The pain is so atrocious that the patient writhes with the agony, rushes up and down the room, or tosses from side to side if in bed. The surface is cold and covered with a cold sweat, and often a severe rigor occurs simultaneously. There may be clonic spasms affecting the right side, or an epileptiform seizure, with loss of consciousness, may occur. Intense nausea accompanies the pain. At first the food is thrown up, but presently, after repeated retching, only some mucus, acid and watery; but the vomiting affords no relief. The action of the heart is feeble, and the circulation is correspondingly depressed. The severity of the seizure is influenced by a variety of circumstances—by the size and roughness of the concretion, by the length of canal to be traversed, and by the condition of the nervous system. The duration of the seizure varies from a few hours to several days, and the first attack is apt to be more severe than any succeeding one. When the attack continues for several days, the pain does not always persist even for hours, for there are remissions in which only an acute soreness remains, and the exacerbations behave as regular attacks. It is highly probable that in these cases several concretions are passed in succession. Again, when the calculus passes from the cystic to the common duct, there is a feeling of relief, but a new paroxysm occurs when the calculus becomes engaged in the duodenal orifice of the ductus choledochus. Inflammation in the peritonæum may be excited about the site of impaction, and involve the neighboring structures, or the duct may become gangrenous. The calculus, by preventing the outflow of bile in the hepatic or common duct, causes jaundice, which is not a usual symptom in impaction of the cystic duct, although it may be present, the surrounding swelling being sufficient to prevent the flow of bile through the common duct, or it is probable that jaundice may be due to the disturbance in the hepatic plexus of nerves. The pain suddenly ceases sometimes by the dropping of the concretion into the duodenum. Jaundice usually succeeds to the pain, and is not often seen during the time of greatest suffering. Sometimes a calculus will remain impacted in the common duct for weeks, or even months; jaundice persists, the bile accumulates, the ducts dilate, until suddenly the impaction is overcome, and violent bilious vomiting and diarrhœa announce the delivery. When the concretion remains permanently impacted, the liver undergoes the changes already noted; the connective tissue multiplies, the gland-cells waste and undergo fatty metamorphosis, and the organ shrinks in size (Charcot). Careful search should always be made in the evacuations for the calculus. The fæces should be thoroughly mixed with water, the solid particles allowed to subside and the fluid portion poured off, and this operation must be repeated until the last solid parts are reached. Sometimes—most frequently, probably—there is but one calculus, but there may be a hundred.

A marvelous change takes place in the patient as soon as the calculus reaches the intestine. The pain ceases, as well as the nausea and vomiting, the bowels act spontaneously, the appetite returns, the jaundice soon disappears, and the state of health is fully restored.

Course, Duration, and Termination.—From the initial pain to the termination of all symptoms may not be longer than two days, or, if jaundice is present, five days. If a number of calculi pass, the duration of a case is indefinitely prolonged. The severe cases of this kind last several weeks. The usual termination is in health, but death from ulcerative perforation and subsequent peritonitis is not uncommon. Now and then a calculus ulcerates through the duct; in the peritonitis which follows, adhesions are formed, limiting the mischief to the immediate neighborhood; a purulent depot is thus created, and gradually a fistulous communication externally is established, and the calculus is discharged with the pus. Sometimes such a purulent depot opens communication with the intestine, stomach, or bladder. The last-named terminates fatally; the discharge by the stomach, intestine, and externally is often successful. After the calculus reaches the intestinal canal, it may serve as a source of new mischief by forming the nucleus of an impaction of the bowel.

Diagnosis.—The only maladies with which hepatic colic may be confounded are hepatalgia, gastralgia, and enteralgia. The locality of the pain, the absence of local soreness, the absence of jaundice, the absence of calculi in the stools, separate these neuralgic affections from hepatic colic.

Prognosis.—A favorable opinion may be expressed in most cases, but the prognosis must be guarded when the pain does not yield, and when the vital powers begin to flag, especially if local tenderness and fever indicate peritonitis.

Treatment.—The severe pain demands immediate attention. There are two methods of relieving it: by the inhalation of ether, and by the hypodermatic injection of morphia. The action of the former is temporary, and, of course, the relief is confined to the period of unconsciousness. This may be sufficient, but usually prolonged administration is necessary. The hypodermatic injection is more effective. From $\frac{1}{12}$ to $\frac{1}{6}$ of a grain of morphia is usually sufficient for an ordinary case, but, if the suffering be very great, $\frac{1}{4}$ to $\frac{1}{2}$ grain of morphia may be required. The combination of morphia and atropia is both more effective and safer, and hence atropia should be given, $\frac{1}{100}$ grain at each injection. Not only does this remedy remove the pain, but it is the most efficient means of preventing or subduing peritoneal inflammations. Anodynes can not be given by the stomach; anodyne enemata are insufficient in this malady—so that the choice of remedies is much restricted. Five minims of chloroform every half hour, in an emulsion or dropped on sugar, has been proposed, but in the author's experience it is usually rejected, and excites nausea even by its odor. It has been gravely proposed to administer it as a solvent of gall-stones, and to relieve the suffering by effecting a solution of the impacted calculus. Trousseau had, it was supposed, disposed of this notion, but it has been revived again. Chloral has also been employed to relieve the pain, but it has not much anodyne power, and is besides very offensive to the stomach in these cases. Warm baths and hot fomentations to the right hypochondrium contribute to relief. Undoubted advantage is derived from the use of leeches, when, the symptoms persisting, tenderness develops and fever arises.

Prophylaxis is highly important. The author has had abundant and highly favorable experience with the plan which is about to be recommended, and he therefore urges it on the attention of his readers: The diet must be carefully regulated. All fats and articles containing fat in any form are excluded rigorously. Saccharine substances are also prohibited, and the starchy constituents of the diet are reduced to a little white or corn bread—potatoes, beans, peas, and rice being excluded. Lean meat of all kinds, eggs, fish, fruit, and the succulent vegetables are permitted freely. Wine at dinner is allowed, but malt liquors and spirits are forbidden. Daily exercise is directed. All irregularities of life of every kind are given up. The remedy which, above all others, has the power to effect the solution and disposition of calculi, is phosphate of soda. This is prescribed in the dose of a drachm three times a day, dissolved in sufficient water, and taken before meals. This remedy is continued for several weeks or months, and, if there are present evidences of gastro-intestinal catarrh, $\frac{1}{20}$ of a grain of the arseniate of soda is added to each dose of the phosphate.

While success seems always to attend this practice, the author has been constantly disappointed in the remedy of Durande (ether and turpentine), and in the administration of chloroform, with a view to its solvent action on retained calculi. As the catarrhal state of the bile-ducts, succeeding to catarrh of the duodenum, is the great factor in the causation of gall-stones, it is highly important to correct it. Without attention to the plan of diet above indicated this can not be accomplished; but the persistent use of phosphate of soda can do much, even without a change in the habits of life, toward bringing about a cure. Vichy-water, and our own Saratoga Vichy, as well as the alkaline waters of this country, which are so abundant, should be used daily in connection with the plan above indicated.

Dr. T. H. Buckler, of Baltimore, strongly recommends the use of the hydrated succinate of the peroxide of iron (ʒjss–ʒvjss water—a teaspoonful *ter in die*) as a remedy to prevent the formation of calculi. The use of this remedy is based on some theoretical notions respecting the oxidizing power of succinic acid and its solvent action. Buckler also urges the use of chloroform during the paroxysms of colic as a solvent of cholesterine. Trousseau long ago disposed of this recommendation, for an hepatic calculus will dissolve in undiluted chloroform only after some hours.

AN OPERATION FOR THE RELIEF OF ANCHYLOSIS OF THE TEMPORO-MAXILLARY JOINT, BY EXSECTION OF THE NECK OF THE CONDYLE OF THE LOWER JAW; WITH REMARKS.

By ROBERT ABBE, M. D.,
SURGEON TO THE OUT-PATIENT DEPARTMENT OF THE NEW YORK HOSPITAL.

The great rarity of cases operated upon for the relief of anchylosis of the jaw by excision of the neck of the condyle, and the success attending a somewhat new method of operating, lead me to report a case which has proved satisfactory even beyond my expectation. For permanently locked jaws surgeons have commonly looked to the operations of Rizzoli and Esmarch as affording the easiest way of relief. The former consists in simply dividing the body of the inferior maxilla in front of the masseter muscle, and afterward relying upon continued motion to prevent union. The latter, in addition, involves the removal of a wedge-shaped piece of bone from the same site. The operations have each succeeded in some cases, and failed in others, on account of the marked tendency to bony union in this part of the maxilla, even where a half inch or more is removed.

Excision of the condyle, however, has been much more rarely done. I find three recorded cases, and in all of them admirable results were obtained. The first case was by Dr. G. M. Humphrey, of Cambridge, England, reported in 1854.* The second was by Bottini, of Turin, in 1872.† The third was by Dr. J. L. Little, of New York, in 1873.* In all, the greater part of the neck of the condyle was removed, but each operator reached it by a different method. In the first two cases the approach was through the tissues directly over the joint. In Dr. Little's operation, at which I was present, it was through an incision along the lower border of the body of the jaw, from the angle to a point opposite the canine tooth (dividing the facial artery). Then the joint was reached by dissecting the masseter muscle from the ramus, and raising a large flap.

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* "Association Med. Journal," 1856, p. 61.

† "Biennial Retrospect." New Sydenham Soc., 1871–'2.

Dr. Humphrey made a curved incision from the side of the orbit across the zygoma to a point in front of the ear, and thence a second cut directly upward, crossing the zygoma again. Dr. Bottini resorted to a single vertical incision.

From dissections on the cadaver I was convinced that, if reasonable care were exercised, the condyle could be exposed with greater ease and equal safety by such incisions as are shown in the succeeding figures. There is a space along the lower edge of the zygomatic process, in front of the eminentia articularis, nearly an inch in length, that is not crossed by any ascending branches of the facial nerve of importance, so that, by carefully separating the masseter and dragging it downward with the parotid and nerve, an opening can, with a little patience, be obtained large enough for all practical purposes. Further than this, I believe that in future an opening of such considerable size will not be needed to do this operation, provided the instruments resorted to for bone-cutting be discarded for the dental engine, with its delicate application of drills and burrs. I made arrangements to use this in the case here reported, but could find no burrs just at that time that suited my purpose. By this device almost all squeezing and stretching of the soft parts and nerves may be avoided, and, better still, the deep edges of the cut faces of bone, as shown in Fig. 2, would be much more perfectly trimmed away, and in a shorter space of time. The scars left by my incisions are so situated as to be capable of complete concealment by a growth of whiskers.

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* "Transactions Med. Soc., State of New York," 1874.

Case.—Emil L——, aged ten years. Seven years ago, when three years old, he had scarlet fever, followed by double suppurative otitis media, with exfoliation of ossicles. Inflammation extended to the temporo-maxillary articulation, and anchylosis was the immediate result. The jaws remained permanently set from that time on.

Four years ago an attempt was made by the family physician to dilate by instruments. The attempt was abandoned after a year or two of trial, as nothing was gained to justify a continuance, and the boy was left with the double affliction of deaf-mutism and locked jaws. He was a lad of remarkably keen and quick powers of observation—intelligent and docile. His sensitiveness to the mocking of companions because he could not open his mouth made him dislike going to school, and his parents brought him to me to see if something could not be done for his relief.

Examination.—The lad is fairly nourished, and his general health is good. At first glance, his lower jaw seems to be much smaller than normal, as if its growth had been impaired. But a very retreating chin is so marked a characteristic in his family that a retarded development can hardly be inferred. The points of his lower incisor teeth stand back of the points of the upper ones three sixteenths of an inch, thus giving a small space through which he has habitually pressed his food, which necessarily consists of soft substances or finely picked meats.

On his attempting to separate his jaws a slight parting of the teeth is observed, enough to allow a sheet of paper to be slipped between them horizontally, but no more. With this trifling motion, however, there could be observed a little shifting of the lower jaw toward the left side. This very slight but important sign determined the anchylosis to be upon that side, where the condyle seemed absolutely fixed. The permanent incisors were in place, but all the others were deciduous teeth, blackened by tartar, and so locked against each other that it seemed impossible for them ever to come out.

Dilatation by instruments was tried, but the jaws seemed immovably fixed. The temporal, masseter, and submaxillary muscles did not seem to be much atrophied.

Operation.—December 10, 1879.—After careful consideration, I did the following operation, with the kind assistance of Dr. R. F. Weir and Dr. W. T. Bull; present also, Dr. H. B. Sands, Dr. C. D. Smith, Dr. Everett Herrick, Dr. A. B. Judson, and Mr. T. B. Gunning. The patient being etherized, a vertical incision was made in front of the ear, beginning over the tubercle of the eminentia articularis (two thirds of an inch in front of the tragus), and extending downward one and a quarter inch. A second incision was then made, one inch in length, along the lower border of the zygoma, meeting the upper end of the first at a right angle, as shown in Fig. 1. The included flap of skin was lifted up from the parotid, and the handle of the scalpel was pressed under the upper edge of the gland, working it away from the zygoma downward and backward toward the ear. An important branch of the facial nerve emerges from the upper and anterior angle of the parotid, not so near the ear as shown in the diagram. It partly supplies the orbicularis palpebrarum. This was observed and left intact while depressing the gland, and it was of interest to note that by the yielding of the neighboring soft parts, by the careful use of a small periosteum elevator in place of the knife (which latter was not used after the skin incisions), the nerve fibers encountered were gradually worked downward to the bottom of a space from one to one and a half inch below the zygoma. Thus they were somewhat stretched, without being cut or torn.

The periosteum elevator now served to strip off the posterior fibers of the masseter muscle from the zygoma, and to clear the neck of the condyle below the tubercle of its articular end.

This being done, a narrow osteotomy chisel was brought to bear just below the expanding condyle, and carefully driven half through the bone. A Delabarre's jaw dilator was next introduced between the incisor teeth, and by the use of considerable force the bone was suddenly snapped at the point where the chisel had made it weak. Instantly the jaws parted freely, showing good mobility of the opposite joint.

It now remained to remove as much of the condyle as was practicable, and an hour was spent in carefully using the chisel, gouge, Langenbeck's gouge, and rongeurs. Thus the neck of the condyle was removed, as shown in Fig. 2, from the lowest point of the sigmoid notch up to its junction with the articular end. I did not believe it justifiable to dig the latter out of the glenoid fossa, as the lamina of bone above it is so very thin.

Fig. 1.

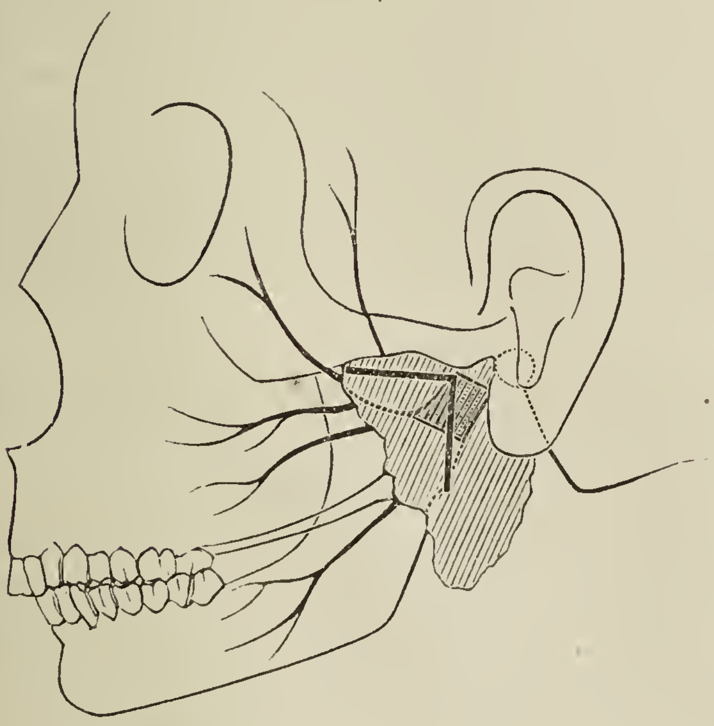
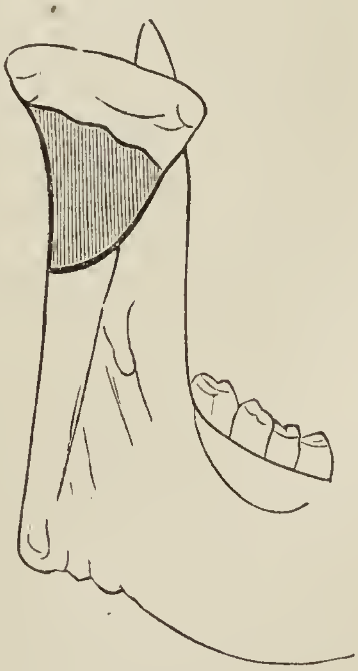


Fig. 2.



From without inward the neck of the bone was pretty thick, and this fact, taken in connection with the depth of the wound, rendered it difficult not to leave the opposing cut surfaces of bone more nearly in contact at their inner than at their outer edges. This is apparent in Fig. 2, where the wedge-shape shaded portion shows the part removed as seen from behind. An interval of half an inch was gained, in which the finger could be laid. Due care was taken not to injure the internal maxillary artery lying immediately behind this portion of bone, though it was not felt in the wound. A drainage tube was introduced, and the horizontal incision was brought together with sutures.

On the following day the patient had free and painless motion of his jaw, opening it nearly two thirds of an inch, but during the next few days the swelling and surgical fever made him indisposed to use it much. A marked contracture of the posterior cervical muscles of the opposite side of the neck came on a few days later. It was quite painful, and I feared beginning tetanus, but after a few days it subsided.

For a week after the operation there was a little drooping of the cheek and angle of the mouth. This quickly disappeared. The orbicularis palpebrarum suffered more, but has to a great extent recovered, and improvement is still going on. The lad has good control over the muscles round the eye, and shuts it tightly, but when winking they are observed to act a little slowly and imperfectly.

The jaw was opened with increasing freedom after the first week, swelling of the parotid region having subsided. The dilator was not used more than four or five times during the following month, and at no time did I think anything was gained by it. The parts became more and more supple, and between the boy's pride in constantly opening his mouth to its fullest extent and the limbering up of disused muscles and of fasciæ by natural processes, at the end of six weeks he easily opened his mouth seven eighths of an inch between the incisors. At two months, this space measured one inch, the dilator not having been used during the preceding month.

At present, three and a half months after the operation, there is absolutely no evidence of tendency to contraction. The mobility of the jaw and the power of mastication are perfect. A small sinus in the center of the vertical cut still gives exit to a drop of pus daily, with an occasional grain of bone. The lad has much improved in physique since the operation, and eats ravenously. His improved articulation of words is remarked by his teacher in the school for deaf-mutes, to which he has returned with joy. His delight at "using his jaw like other boys" is unbounded.

OBSERVATIONS UPON THE EFFECTS OF TOBACCO.*

By EDWARD T. ELY, M. D.

I HAVE recently had the opportunity of examining over one hundred workers in tobacco, chiefly cigar-makers. My primary object was to examine their eyes, but I proposed also to make a thorough examination of their general bodily condition. This general examination I was obliged to omit, because the investigations were made in the factories, and the men were unwilling to be taken from their work merely in the interests of science. It was by no means easy to obtain from them even the brief interviews with which I was favored.

The effects of tobacco upon the health must always have a practical interest for us, considering the millions who consume it and work in it, and the numerous questions regarding it which patients put to their medical advisers. I therefore venture to communicate to you the results embodied in this paper, feeling that, even if they be of no value for the branch of medicine for which they were collected, they may at least be a contribution to the hygiene of occupation.

Cigar-making is a sedentary and, upon all our theories, a very unwholesome pursuit. Those who have never been much in cigar factories have no conception of their atmosphere. Ordinarily, a large number of workers are congregated in a single room, with all the windows closed, unless the weather is very mild. The impurity of the air, simply from overcrowding, is very oppressive to one unaccustomed to it. There are added to this the emanations from large quantities of tobacco and a never-ending cloud of tobacco smoke. It is not necessary to mention in detail the various processes of *stripping*, *sweating*, *drying*, etc., by which the tobacco is prepared for use, and by which it comes in contact with the operatives. Cigar-makers of the male sex nearly all smoke. Of some it may be said that they smoke almost incessantly. Many of the moderate smokers suck the burnt stump of a cigar a large part of the time while at their work. They are constantly handling tobacco, and their fingers are more or less coated with it. Often there is a thick crust of it upon their lips, from their habit of biting off parts of the leaf instead of cutting them. Being paid by the piece is to some an incentive to lengthen their hours of labor, so that they work at night as well as during the day. Those whom I saw, being mostly Spaniards, seemed to be temperate, as a rule, drinking little besides red wine. None of them chew tobacco. The only chewers in the list are Americans.

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* Read before the New York Clinical Society.

The method which I followed was to test the vision of each person, then to examine the eyes externally and with the ophthalmoscope, then to ask a few general questions about the health, habits, etc. The results, as I recorded them in one hundred and two cases, are given in the following table. Some of the persons examined have been omitted from the list, because they were very young, and had been only about a year in the business. All those excluded had perfect vision.

OBSERVATIONS UPON THE EFFECTS OF TOBACCO.

No.	Sex.	Age.	Nativity.	How many years work'd in Tobacco.	HABITS. S. = Smokes ; C. = Chews ; D. = Drinks.	Vision.	By Ophthalmoscope, etc.	General remarks.
1	Male.	52	English.	40	S., 40 years, 10–15 cigars daily.	$\frac{20}{20}$	Normal.	"Doesn't hurt me a bit. Have seen thousands of cigar-makers; never knew one to give up work from failing sight." Looks well.
2	Male.	49	Spanish.	35	S., 35 years, to excess.	$\frac{20}{20}-$ with $+\frac{1}{18}$ 1 Jaeger w $+\frac{1}{8}$	Normal. H.	Feels perfectly well. Is fleshy. Some catarrh of pharynx.
3	Male.	49	English.	35	S., 30 years, average 3 daily.	$\frac{20}{30}-$ 1 Jaeger with difficulty.	Optic disks look atrophic.	"My sight has failed in past 6 or 7 years. My eyes water a great deal in the street." Is fleshy. Feels well.
4	Male.	45	Spanish.	29	S., 37 years, cigars and "a great many cigarettes."	$\frac{20}{20}$	Disks look pale ; slight conjunctival catarrh.	"Tobacco doesn't hurt me." Looks and feels well.
5	Male.	43	German.	29	S., 18 years, 1–3 daily.	$\frac{20}{20}$	Patches of pigment at outer side of left disk. Disks pale at outer sides.	"Doesn't hurt me." Looks well.
6	Male.	40	....	26	S., 20 years, 1–2 daily now ; more formerly.	R $\frac{20}{40}$ L $\frac{20}{20}-$	Nerves pale. Has had divergent squint of right eye since 5 years old.	"It doesn't hurt me. My sight in the right eye is as good as it ever was."
7	Male.	38	Spanish.	25	S., 25 years. "I smoke all day."	$\frac{20}{20}$	Normal.	"I feel as well as I ever did."
8	Male.	38	Negro born in Cuba.	25	S., 10 years, excessively.	$\frac{20}{20}$	Disks pale. H.	"Doesn't hurt me. I feel better than when I began to work."
9	Male.	37	Spanish.	25	S., 25 years. 2–3 daily average; some cigarettes.	$\frac{20}{20}-$ w $-\frac{1}{16}$ c 90°	Normal.	Feels well except some dyspepsia. Has heard of "consumption" among cigar-makers, but never of failure of vision.
10	Male.	39	American.	25	S., 28 years, excessively ; 6–8 daily now.	$\frac{20}{20}$	Normal.	Thinks tobacco doesn't harm him. Looks well.

OBSERVATIONS UPON THE EFFECTS OF TOBACCO.

No.	Sex.	Age.	Nativity.	How many years work'd in Tobacco.	HABITS. S. = Smokes; C. = Chews; D. = Drinks.	Vision.	By Ophthalmoscope, etc.	General remarks.
11	Male.	37	Spanish.	24	S., 24 years. "Not very much."	$\frac{20}{50}$	Nothing special.	Dyspepsia 14 years. Pains in occiput. Nervous. Under care of a physician now. "I don't see well in the latter part of the day. I drink everything —brandy, whiskey, everything." Breath alcoholic.
12	Male	35	German.	22	S., 22 years, 2–3 daily.	$\frac{20}{20}$	Normal.	"It doesn't hurt me."
13	Male	35	German.	22	S., 17 years. "I smoke all the time when not working; 4–5 a day during work."	$\frac{20}{20}$	Normal.	Nausea sometimes from smoking.
14	Male	36	Spanish.	21	S., 20 years, 4–5 daily; often more.	$\frac{20}{20}$	Normal.	"Dyspepsia, if I smoke too much." Well otherwise. "Never heard cigar-makers complain of failure of vision. I consider the business healthy. Men work to age of 55 or 60, as a rule."
15	Male.	39	Spanish.	20	S., 20 years.	$\frac{20}{20}$	Nothing special.	"It doesn't hurt me any."
16	Male	53	Chinese.	20	S., 30 years, 2–3 daily.	$\frac{20}{20}$	Healthy. Very small pupils.	Is an opium-smoker.
17	Male	37	English.	20	S., 20 years, 5–6 daily.	$\frac{20}{20}$	Normal.	"Pain over heart sometimes." Otherwise well.
18	Male	36	German.	20	S., over 20 years, 2–3 daily average.	$\frac{20}{20}$	Normal.	"Doesn't hurt me."
19	Male.	38	German.	20	S., 22 years, 3–4 daily.	$\frac{20}{20}$—	Disks look pale.	"Doesn't hurt me.'"
20	Male	29	German.	18	S., 6 years.	$\frac{20}{20}$	Normal.	"It gives me chronic catarrh."
21	Male.	30	German.	18	S., 18 years, 2–3 daily.	$\frac{20}{20}$	Normal.	Well
22	Male.	28	Spanish.	18	Never has smoked.	$\frac{20}{20}$	Normal.	Well.
23	Male.	36	Spanish.	18	S., 25 years, 12 daily average now.	$\frac{20}{20}$	H.	"I am perfectly well."

24	Male.	34	Spanish.	17	S., 22 y'rs. "A great many cigarettes."	$\frac{20}{20}$	Normal.	....
25	Female.	26	Bohemian.	17	....	$\frac{20}{20}$	Normal.	....
26	Male.	28	American.	17	S., 15 years, average 4 daily. "Sometimes 10."	$\frac{20}{20}$	Normal.	Feels well.
27	Male.	33	Spanish.	16	S., 16 years.	$\frac{20}{20}$	Normal.	"It doesn't hurt me."
28	Male.	32	Spanish.	16	S., 19 years, 12 cigars daily. "About 50 cigarettes daily."	$\frac{20}{20}$	Normal.	"It doesn't hurt me." Feels well.
29	Male.	37	Spanish.	16	S., 25 years. "I smoke all the time." Thinks he has smoked 30 cigars a day in Cuba.	$\frac{25}{20}$	Normal.	Feels perfectly well. Is fleshy. Never heard of tobacco injuring sight of workmen. Thinks it injures the lungs.
30	Male.	26	English.	16	S., 16 years, 2–3 daily.	$\frac{20}{20}$	Disks look red.	"Makes me nervous and spoils my appetite."
31	Male.	29	American.	16	S., 13 years, 2–3 daily.	$\frac{20}{20}$	Normal.	"Never heard of injury of sight from tobacco."
32	Male.	28	Spanish.	15	S., 13 years, 4–5 daily.	$\frac{20}{20}$	Normal.	"Tobacco doesn't hurt me." Looks well.
33	Male.	30	Spanish.	15	S., 13 years, 3–4 daily.	$\frac{20}{40} - w - \frac{1}{15}$ c 180°	Mixed astigmatism.	Has dyspepsia. Looks pale. Thinks his vision has failed since he was a boy.
34	Male.	25	Spanish.	15	S., 16 years. "I smoke all day." Apparently smokes only 3 or 4.	$\frac{20}{20}$	Normal.	"It doesn't hurt me."
35	Male.	23	Spanish.	15	S., 10 years, 5–6 daily.	$\frac{20}{20}$	H.	"Doesn't hurt me." Looks well.
36	Male.	29	German.	15	S., 15 years, 2–3 daily.	$\frac{20}{20} - w - \frac{1}{48}$ c 180°	Hyperopic astigmatism.	"Doesn't hurt me. My sight is as good as ever."
37	Male.	38	Bohemian.	15	Never has smoked.	R $\frac{20}{50} - w + \frac{1}{36}$ L $\frac{20}{20} - w + \frac{1}{16}$	High degree of H. Strong convergent squint of right eye in trying to see letters at 20 feet.	....
38	Male.	32	American.	15	S., 10 years, 3–4 daily 6 years; 10 daily past 4 years. "Some days I smoke 25."	$\frac{20}{20}$	Not examined.	Has seen thousands of cigar-makers. Never heard them complain of failing vision. "I consider it a healthy occupation."
39	Male.	27	Spanish.	14	S., 17 years. "I smoke all the time—20 cigars a day."	$\frac{25}{20}$	Normal.	"Doesn't hurt me." Has gained flesh. Never heard workmen complain of eyesight.

OBSERVATIONS UPON THE EFFECTS OF TOBACCO.

No.	Sex.	Age.	Nativity.	How many years work'd in Tobacco.	HABITS. S. = Smokes; C. = Chews; D. = Drinks.	Vision.	By Ophthalmoscope, etc.	General remarks.
40	Male.	29	Spanish.	14	S., 10 years, 3–4 daily.	$\frac{20}{20}$	H.	Feels well. Looks well.
41	Male.	27	Spanish.	14	S., 12 years, 3–4 daily; sometimes more.	$\frac{20}{20}$	H. $\frac{1}{16}$	"I feel as well as ever." Bad teeth. Has asthenopia.
42	Male.	43	Chinese.	14	S., 30 years, 10 daily.	$\frac{20}{20}$	Normal. Small pupils.	"I smoke a quarter of a pound of opium a week. Tobacco doesn't hurt me."
43	Male.	49	Spanish.	14	S., 25 years, 6 daily.	$\frac{20}{20}$	Normal.	"It doesn't hurt me."
44	Male.	37	Swede.	14	S., 19 years, 2–3 daily.	$\frac{20}{70} - w - \frac{1}{2\frac{1}{2}}$	Myopia. Post. staphyloma.	"Always near-sighted. Tobacco don't hurt me."
45	Male.	43	Spanish.	13	S., 30 years, 2–13 daily.	$\frac{20}{20} - w - \frac{1}{36}$ c 180°	Normal.	Is thin. Has dyspepsia. Looks well. Pharyngitis.
46	Male.	30	Spanish.	12	S., 18 years, 12 daily.	$\frac{20}{20}$	Normal.	Chronic cough. Bad teeth.
47	Male.	25	American.	12	S., 8 years, 3–4 daily.	$\frac{20}{20}$	Disks pale.	Feels well.
48	Male.	26	Chinese.	12	S., 10 years, 1–3 daily.	$\frac{20}{20}$	Normal.	Opium-smoker.
49	Male.	33	Spanish.	12	S., 12 years, 6 daily.	$\frac{20}{20}$	Normal.	"It doesn't hurt me."
50	Male.	26	Spanish.	12	S., 12 years, 3–4 daily.	$\frac{20}{20}$ w $+\frac{1}{36}$ c	H. As.	"It doesn't hurt me."
51	Male.	34	Swede.	12	S., 16 years, 2 daily.	R $\frac{20}{200}$ L $\frac{20}{50}$	Chronic conjunctivitis. Extensive corneal opacities.	"Tobacco doesn't hurt me."
52	Male.	26	Negro born in Cuba.	11	S., since a boy excessively.	$\frac{20}{20}$	Normal.	"It doesn't hurt me." Has a chronic cough.
53	Male.	48	Germany.	11	S., 32 years, pipes and cigars to excess for 22 years; 10 cigars a day past 10 years.	$\frac{20}{20}$ w $-\frac{1}{12}$	Not examined.	Feels perfectly well.
54	Female.	30	Bohemian.	11	....	$\frac{20}{20}$	Outer part disks pale.	Is well.
55	Male.	27	French.	11	S., 12 years, 3–4 daily.	$\frac{20}{20}$	H. Large physiological excavation.	"It gives me dyspepsia."

56	Male.	34	American.	11	S., 16 years, 6 daily 10 years; 15 daily past 6 years, often more; chews.	$\frac{30}{20}$	Normal.	Feels perfectly well. Never been ill.
57	Male.	26	Spanish.	10	S., 10 years. "Moderately."	$\frac{20}{20} - \text{w} - \frac{1}{30}\text{ c }180^\circ$	Normal.	"Sometimes makes me nervous. I can't write a letter at night because my hands shake." Feels well.
58	Male.	26	Spanish.	10	S., 8 years, a good many cigarettes, as well as cigars.	R $\frac{20}{40}$ L $\frac{20}{20}\text{ w } + \frac{1}{60}\text{ c }90^\circ$	Iritis of right eye and spots on lens. Left eye normal.	Is well.
59	Female.	..	Bohemian.	10	....	$\frac{20}{30} + \text{w} + \frac{1}{36}\text{ c }90^\circ$	Normal.	Is well.
60	Male.	26	Spanish.	9	S., 10 years. "I smoke all day."	$\frac{20}{20}$	Normal.	Feels well. Catarrh of pharynx.
61	Male.	29	Spanish.	9	S., 12 years.	$\frac{20}{20}$	Normal.	"Nervous sometimes."
62	Male.	25	Spanish.	9	S., 10 years, 2–3 daily.	$\frac{20}{20}$	H.	"It doesn't hurt me." Looks well.
63	Male.	23	Spanish.	9	S., 9 years, 3–4 daily.	$\frac{20}{20}$	Normal.	"Do not feel as well as when I began. Felt *stronger* then; now more *lively*." Is thin.
64	Male.	26	Spanish.	9	S., 9 years.	$\frac{20}{20}$	Outer part of disks pale.	"Makes me cough."
65	Male.	31	Chinese.	9	S., 5 years. "Not much."	$\frac{20}{20}$	H.	....
66	Male.	..	French.	9	S., 20 years, 3–4 daily.	$\frac{20}{20}$	Outer part of left disk pale.	"Doesn't hurt me." Is very deaf. Severe catarrh.
67	Male.	23	German.	9	S., 7 years, 3–4 daily.	$\frac{20}{20}$	Normal.	"Doesn't hurt me."
68	Male.	30	Spanish.	9	S., 17 years, 3–4 daily.	$\frac{20}{20}$	H.	"Doesn't hurt me."
69	Male.	25	German.	9	S., 15 years, 4–5 daily.	$\frac{20}{20} - \text{w} - \frac{1}{48}\text{ c }180^\circ$	H. As.	"Doesn't hurt me. Sight is as good as ever."
70	Male.	23	Spanish.	8	S., 8 years. "A good deal."	$\frac{20}{20}$	Normal.	"I don't feel as well as when I began."
71	Male.	23	Spanish.	8	S., 6 years 3–4 daily.	$\frac{20}{50}$—	H. $\frac{1}{8}$. Nothing else.	"My sight has always been poor."
72	Male.	47	Spanish.	8	S., 30 years, 4–6 daily.	$\frac{20}{20}$	Normal.	"Doesn't hurt me."
73	Male.	31	German.	8	S., 20 years, 2–4 daily.	$\frac{20}{20}$	H.	"Doesn't hurt me."
74	Female.	25	Bohemian.	8	....	$\frac{20}{20}$	Normal.	Is well.

OBSERVATIONS UPON THE EFFECTS OF TOBACCO.

No.	Sex.	Age.	Nativity.	How many years work'd in Tobacco.	HABITS. S. = Smokes; C. = Chews; D. = Drinks.	Vision.	By Ophthalmoscope, etc.	General remarks.
75	Male.	25	American.	8	S., 16 years. "A great deal." 7-8 daily now.	$\frac{20}{20}$	Normal.	Has dyspepsia.
76	Male.	23	Spanish.	7	S., 7 years, to excess.	$\frac{20}{20}$	Normal.	Feels well. Looks well. Large tonsils. Pharyngitis. Bad teeth.
77	Male.	30	Spanish.	7	S., 12 years, to excess.	$\frac{20}{30}-$	Disks pale. H.	"Doesn't hurt me."
78	Female.	19	Bohemian.	7	....	$\frac{20}{20}$	Normal.	Is well.
79	Male.	23	Spanish.	7	S., 7 years, 5-6 daily.	R $\frac{20}{20}-$ w $+\frac{1}{12}$ L $\frac{20}{100}$ w $+\frac{1}{14}$	H. $\frac{1}{8}$. Nothing else.	"Doesn't hurt me."
80	Male.	20	Spanish.	7	S., 5 years, 3-4 daily.	$\frac{20}{20}$	H.	"Doesn't hurt me."
81	Male.	21	Spanish.	6	S., 7 years.	$\frac{20}{20}$	Normal.	Feels well as ever.
82	Male.	21	Spanish.	6	S., 7 years. "A good deal."	$\frac{20}{20}+$	Normal.	"Doesn't hurt me."
83	Male.	22	Spanish.	6	S., 6 years, 4-5 daily.	$\frac{20}{70}+$ w $+\frac{1}{12}$	....	No evidence that sight has failed in past 6 years.
84	Male.	32	Chinese.	6	S., 9 years, 5-6 daily.	$\frac{20}{20}$	Normal.	....
85	Male.	29	German.	6	S., 15 years, 2-5 daily.	$\frac{20}{20}$	Normal.	"Doesn't hurt me."
86	Female.	16	Bohemian.	6	....	$\frac{20}{20}-$	H. Large retinal veins.	Is well.
87	Female.	27	Bohemian.	6	....	$\frac{20}{20}$	H.	....
88	Male.	20	Spanish.	5	S., 5 years.	R $\frac{20}{20}-$ L $\frac{20}{40}$ w $-\frac{1}{24}$ c 130°	Right eye H.; left eye M. As. Nothing else.	Dyspepsia and pains in back. Otherwise well. Looks well. Bad teeth. "My left eye was sore when young."
89	Male.	17	American.	5	S., 5 years.	$\frac{20}{20}$	Normal.	Is well. Some dyspepsia.

90	Male.	23	American.	5	S., 8 years, 10 daily.	$\frac{20}{20}-$	Normal. Slight blepharitis.	Feels well. Looks well.
91	Male.	26	Swiss.	5	S., 8 years.	$\frac{20}{20}-\ \text{w}\ -\frac{1}{48}\ \text{c}$	H. As.	"Doesn't hurt me."
92	Male.	19	American.	5	S., 9 years, to excess; 5 daily now; chews a good deal.	$\frac{20}{20}$	H.	Perfectly well.
93	Male.	19	Bohemian.	5	S., 7 years. "Not much."	$\frac{20}{20}$	H.	....
94	Male.	35	Spanish.	5	S., 23 years, 3-4 daily.	$\frac{20}{20}-\ \text{w}\ +\frac{1}{60}\ \text{c}\ 90°$ $\Gamma\ -\frac{1}{48}\ \text{c}$	H. As. Large retinal veins.	Wears glasses for reading. Feels well. Some dyspepsia.
95	Male.	22	Spanish.	5	S., 10 years, 5-6 daily.	$\frac{20}{20}$	....	"Doesn't hurt me."
96	Male.	22	American.	4	S., 8 years, 1-5 daily.	$\frac{20}{20}$	H.	Is well.
97	Male.	30	Spanish.	3	S., 17 years, 12 daily, and more for past 3 years.	$\frac{20}{20}$	Normal.	Feels well.
98	Female.	18	Bohemian.	3	....	$\frac{20}{20}$	H.	Is well.
99	Male.	23	Pole.	3	S., 3 years.	$\frac{20}{20}$	Normal.	....
100	Female.	17	Bohemian.	2	....	$\frac{20}{20}$	Normal.	Is well.
101	Male.	22	Spanish.	1½	S., 4 years, 4-5 daily.	$\frac{20}{20}$	H.	Asthenopia in evening work. "I feel weaker in every way than before going into the business." No dyspepsia. Has lost flesh. Looks well.
102	Male.	80	American.	....	....	....	....	Been a manufacturer 30 years. "Have seen thousands of workmen, and never heard of their sight being impaired by tobacco."

It seems to me that, among persons so exposed as these are to the influence of tobacco, by handling, smoking, and inhaling it for many hours each day, even one hundred individuals ought to show considerable of its bad effect, if this is very great. The general impression which I received from looking at the workmen as a whole was that of their being in average health. I got the same impression from visiting a large number of factories for cigars and cigarettes in Havana a few years ago.

This corresponds with observations reported by others, so far as male adults are concerned. Dr. Roger S. Tracy, who, with Dr. N. B. Emerson, has investigated the condition of cigar-makers in the factories and tenement-houses of this city, has expressed the opinion that the business is specially injurious only to persons under the age of puberty and to females. Dr. Tracy thinks sexual development is hindered in young girls by tobacco, and he and Dr. Emerson were greatly struck by the paucity of children in the families of cigar-makers. Thus, in one hundred and twenty-four families only an average of 1·09 children to each married couple was found; and in two hundred and one families only an average of 1·63 children.* This is surely a low ratio for a tenement-house population.

I tried to collect as much *oral* evidence as possible by questioning those workmen who seemed specially intelligent. The prevailing belief among them seemed to be that the injurious effects of tobacco consisted in "cough," "dyspepsia," and "nervousness," manifested in a limited number of persons. I examined the throat and teeth as often as possible. Pharyngeal catarrh was found very commonly, but perhaps no oftener than in other classes. The proportion of bad teeth did not seem large to me.

With regard to the effects of tobacco upon the vision, different authorities hold different opinions. From some articles upon the subject—such, for instance, as the valuable papers of Mr. Jonathan Hutchinson, of London—the reader might infer that impaired vision from tobacco was frequent

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* Board of Health Reports, 1874–'75.

(in England, at least), and that it was differentiated from other forms of amblyopia without much difficulty. From the writings of some others the inference might be drawn that it was an open question whether tobacco had any such bad influence whatever.

Soelberg Wells, in his "Treatise on the Eye,"* says: "In by far the greater number of cases of amaurosis which I have met with in heavy smokers, the patients readily admitted their free indulgence in other excesses. I fully admit the fact that the excessive use of tobacco (but most frequently together with other causes) may produce considerable impairment of vision, and finally, if the habits of the patient be not entirely changed, and the use of tobacco, stimulants, etc., given up, even atrophy of the optic nerves. But I can not, from my own experience, accede to the doctrine that there is anything peculiar in the form of atrophy of the optic nerve which would at once enable one to diagnose the nature of the disease as depending upon excessive smoking."

Mr. Carter, in his text-book on the eye, in discussing the causes of optic-nerve atrophy, writes as follows: "Among those most commonly assigned, tobacco and alcohol held prominent places, but held them, I venture to think, upon very feeble and insufficient evidence." He then refers to a statement by Dr. Dickson (physician to the British Embassy at Constantinople), that the "consumption of tobacco in that city averaged about three pounds weight per head per month for the whole population, but that 'amaurosis' was a 'rare affection' there." He also quotes a letter from Dr. Hubsch, an oculist of Constantinople, as follows: "With regard to the action of tobacco upon the eyes, it is very problematical; here everybody smokes from eve to morn, and from morn to eve; the men smoke much, the women a little less, and children smoke from the age of seven or eight. I have never been able to attribute amaurosis to the abuse of tobacco; the number of smokers is immense, and the number of amaurotic persons limited."† Mr. Carter goes on to say: "I have obtained the same kind of negative evidence from Egypt and

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* American edition, page 450.

† Translated from the French. CARTER, Am. ed., p. 377.

India; and, in the face of it, taking into account the difficulty of distinguishing between causation and coincidence, I do not attach much importance to the fact that several patients who have suffered from nerve atrophy have been 'great smokers' . . . and it is to my mind conclusive," Mr. Carter says, "that, although the consumption of tobacco has greatly increased of late years, I have no experience of any parallel increase of nerve atrophy." To this passage Dr. John Green, of St. Louis (who edits the American edition of Mr. Carter's book), appends a foot-note, in which he says: "A very large proportion of the cases of optic-nerve atrophy which have fallen under our own observation have been in cigar-makers and workmen in tobacco factories. Such persons ordinarily use tobacco very freely, both by smoking and chewing, but are not especially addicted to drinking."

Of the cases from the books of the Manhattan Eye and Ear Hospital, given below, not a single one was in a worker in tobacco, and there was only one among the cases reported by Mr. Hutchinson. In the work of Stellwag greater stress is laid upon tobacco and alcohol combined as a cause of amblyopia than upon tobacco alone. In a recent article* upon "Tobacco and Alcohol Amblyopia," by Dr. T. Hirschberg, of Berlin, the author expresses his decided belief in a characteristic form of amblyopia due to the abuse of tobacco alone.

De Wecker, of Paris, whose text-book is one of the latest, says: "The most commonly met with form of toxic amblyopia is that produced by the conjoint abuse of alcohol and tobacco. Some authors are still doubtful whether tobacco alone ever produces it. Before going further, I must insist on the importance of your satisfying yourselves by ophthalmoscopic examination, and in other ways, that no errors of refraction exist uncorrected. Such might readily produce amblyopia; indeed, I have been before now surprised to hear the opinions of men often cited in these cases who absolutely neglect this important preliminary examination."† In recording his own experience M. De Wecker speaks of "*tobacco and alcohol combined*" as causing the amblyopia.

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* "British Med. Journal," 1879, ii., p. 810.

† "Ocular Therapeutics." Translated by Litton Forbes. London, 1879, p. 446.

These brief quotations will be enough to represent to you the prevailing opinions upon this subject. Those who believe most firmly in tobacco amblyopia consider that the prognosis is good if the bad habit be abandoned, and that, under these circumstances, atrophy of the optic nerve is a rare sequel.

A tobacco amblyopia is mentioned in all modern text-books on the eye, and most ophthalmologists believe in it, and on good and sufficient evidence, so far as we can judge. It certainly seems to me to have an influence in causing impairment of the sight, but to a less extent than some writers would have us believe. In quite a number of cases of so-called *amblyopia from abuse*, seen by me in the past few years, there have been but few in which the abuse of tobacco was not combined with other abuses, especially with that of alcohol.

In the records of Dr. Roosa's practice and my own for the past five years I find twenty-one cases which were regarded as amblyopia from abuse. Of these, thirteen persons admitted excessive indulgence in both alcohol and tobacco; two used tobacco to excess, and said they used liquor only "moderately"; five admitted excess only in tobacco; and one abused alcohol alone. Of those who used tobacco excessively, it is recorded that one had syphilis, and that one had been "straining his eyes in doing some very fine inlaid wood-work" when the amblyopia came on. A man is now under observation who has been a great drinker and smoker for ten years, and who has noticed failing vision for the past six months. His vision is, R. E. $\frac{3}{200}$; L. E. $\frac{10}{200}$; and he has neuro-retinitis in both eyes. There is no proof that the inflammation is dependent upon his excesses, although no other cause is apparent; if, however, he had presented himself afterward with atrophied nerves, his condition would undoubtedly have been ascribed to his bad habits.

Dr. Stowell has kindly looked over the records of the Manhattan Eye and Ear Hospital for the past seven years, with the following result: forty cases of amblyopia, with or without atrophy of the optic nerves, are recorded as associated with the abuse of spirits and tobacco. Of these, eight persons are recorded as abusing tobacco alone; twenty-two, liquor alone; ten, both combined. As already mentioned, there is no worker in tobacco in the list, but there are three liquor-dealers. The occupations were given as follows: laborers, ten; boatmen, two; carpenter, four; foreman, one; machinist, two; liquor-dealer, three; driver, three; clerk, three; soldier, one; printer, two; tailor, one; physician, one; stableman, one; farmer, one; artist, one; marble-cutter, one; waiter, one; 'longshoreman, one; housekeeper, one. One of the patients was a female (a housekeeper), of whom it is recorded that she had "long been in the habit of drinking and smoking." She had atrophy of the optic nerves with vision equal to counting fingers at four feet with each eye.

Mr. Hutchinson says,* "Total abstainers from stimulants are more liable to suffer than others, and, although we sometimes meet with the disease in the intemperate, I have a strong impression that, on the whole, alcohol counteracts tobacco." I do not understand this to be the general opinion among ophthalmologists, but rather the reverse. In at least half of the cases reported by Mr. Hutchinson the patients were drinkers. In commenting on a series reported in 1871, he says, "In all the worst cases the patients had used alcoholic drinks, and two of them had been great drinkers." †

What De Wecker says about examining the refraction, etc., is very important. Doubtless much error has arisen here, as elsewhere, through careless observation. Great care is needed in taking the history of such cases as are here referred to; for everybody of experience knows what a rigid cross-examination is required to get from a patient any true account of a failure of one of the special senses. In the hurried examinations of dispensary practice (and sometimes of office practice) many a person will give an apparently clear history of failing sight from the abuse of tobacco, when more rigid inquiries will fail to show that the vision is any worse than it was before the bad habit was contracted. It will be found, for example, that the patient reads the same print that he always has read, recognizes distant objects as well as ever; that, in short, there is no evidence of any failure of vision, but only of more attention than usual being paid to a defect which has always existed.

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* "Royal London Oph. Hosp. Reports," 1876, p. 458.

† Ibid., 1871, p. 185.

The making of cigars requires good eyesight, as part of the work is quite fine. Especially is this true of the small end of the cigar. The making of this point, and the closing of it accurately, so as to leave no seam or gap visible, is a matter of pride among good workmen. If impairment of sight were a frequent or constant effect of tobacco, many cigar-makers would be rendered incapable of doing first-class work. Is it not reasonable to suppose that some of them would seek advice from doctors, and would be told that their bad vision was caused by tobacco; that the matter would be talked over at the work-bench; and that in time a certain tradition would grow up about it among the operatives themselves?

In my inquiries among the most intelligent workmen, before referred to, I did not find one, even of those grown old in the business, who had ever heard of vision being impaired by tobacco. Of course, no great stress can be laid upon this kind of evidence, but still it has a certain value. I found several men with presbyopia and hypermetropia, who were embarrassed in doing the finer parts of their work, and who might have passed for cases of amblyopia. Proper glasses, however, restored their vision at once to the normal standard. One man, for instance, a Spaniard, forty-nine years old, who had worked at tobacco and smoked for thirty-five years, needed convex glasses of eighteen inches focus to give him normal distant vision, and glasses of eight inches focus for near objects. He was working with difficulty, and complaining of failing sight, without any idea of the real cause of his defect. I was told that old cigar-makers scarcely ever wore glasses at their work.

It will be seen by the table that 88 of the subjects had what may be called normal vision. Where the vision is marked $\frac{20}{20}$—, it means that the subject miscalled one or two of the test-letters, but no more than was justly attributable to ignorance, excitement, or a refractive defect. This is probably as good a showing as would be obtained from 100 persons taken at random anywhere. Of the 15 who had defective vision in one or both eyes, in 13, it seems to me, the amblyopia is explainable by the refractive condition, or by the history of the case. At any rate, there is no good reason for attributing it to tobacco. In case No. 11 the patient probably had syphilis. There remain only two cases, in my opinion, in which the amblyopia can be fairly attributed to tobacco, provided one chooses to do so. These are Nos. 3 and 77. Of course, even in those cases, there is no positive proof one way or the other.

No importance is attached to the variations in color of the optic disks, noted in many cases, for they were only such as are constantly seen in non-smokers, such as women and children, and in other eyes, which, for all practical purposes, we are obliged to consider healthy. The visual fields ought to have been tested in these examinations, but it was impossible to do so. The vision was tested under uniform illumination, as far as possible, and the tests were varied enough to prevent deception.

It will be seen by the table that 59 of the subjects (or about 60 per cent.) had been working in tobacco for upward of 10 years. Of these, one had worked 40, two 35, two 29, one 26, four 25, one 24, two 22, one 21, five 20, four 18, three 17, five 16, seven 15, six 14, and six 12 years.

Twelve were 40 years old or more, and forty-seven were 30 or more.

There were 48 Spaniards, 13 Germans, 12 Americans, 11 Bohemians, 5 Chinese, 4 English, 2 French, 2 negroes, 2 Swedes, 1 Swiss, and 1 Pole. The list includes nine females, all of whom were in good health and had normal vision.

Of the 93 males, 65 had been smokers for ten years or more. Some had been excessive smokers for half of a lifetime. Two had never smoked at all. Of course, it was not possible to obtain accurate information as to the amount of tobacco used by each smoker. Undoubtedly some exaggerated the amount, while others understated it.

My own impressions, gathered from these examinations, as well as from other experience, are, that tobacco has of itself only a comparatively slight influence in impairing the vision; that working in tobacco is as healthful as most other sedentary occupations; that in certain persons peculiarly susceptible to it, or, when combined with other noxious influences, it may impair the vision or the general health, just as has been claimed for it; and that constant contact with it, as with other poisons, may beget a tolerance of it sufficient to contradict all theory.

The strength of the weed and the manner of using it have an influence, and this may explain the freedom from tobacco amblyopia which certain countries are said to enjoy.

The conclusions drawn here are not new, but it may not be unprofitable to present them afresh to your consideration.

My thanks are due to Mr. Howard Ives and to R. Monné & Brother, of this city, for the privilege of making these examinations.

INTRA-VENOUS INJECTION OF HUMAN MILK.

By JOSEPH W. HOWE, M. D.,
PROFESSOR OF CLINICAL SURGERY IN BELLEVUE HOSPITAL MEDICAL COLLEGE.

Since my first experiments in the transfusion of milk many attempts have been made in this country and in Europe to popularize the operation. Some have found it useful, while others, like myself, consider it a dangerous operation, and one which in no degree possesses the value of blood transfusion.

Notwithstanding my unfavorable views of the operation, I experimented last year with *human milk*, thinking that it might possibly possess superior advantages to the milk of cows and goats. The history of the case given below shows conclusively that human milk is no better than the milk obtained from any other animal, and that the same unfavorable and alarming symptoms attend its use.

Louisa Rade, æt. twenty-five years, a native of Italy, was admitted to Charity Hospital February 17, 1879, suffering from caries of the first and second ribs on the right side, caries of the first dorsal vertebra, and chronic catarrhal enteritis. Two large abscesses communicated with the diseased bone, and discharged large quantities of fetid pus. Tonics and stimulants were given with good effect for a few days; her appetite increased, and the suppuration diminished. This improvement, however, was only temporary. She soon began to sink from the combined effects of profuse diarrhœa and suppuration. It was then decided to try the intra-venous injection of human milk.

A healthy woman was obtained from the lying-in ward of Charity. Three ounces of healthy milk were drawn from the breasts, strained through carbolized gauze, and placed in a basin of warm water. The cephalic vein in the right arm of the patient was then opened, and the double cannula of Colin's instrument introduced. The milk was then poured into the receiver, and the injection was commenced. At this time the patient's pulse was 126, and her respiration 22. When the first half-ounce had been thrown in, the pulse ran up to 150, and the respiratory movements to 30 to the minute. She complained, through an interpreter, of great pain in the back and limbs, which I have noticed before in other cases of milk transfusion. With the introduction of the next half-ounce of milk the respiratory movements became labored and irregular, the pulse intermittent, and at times almost imperceptible. The operation was temporarily suspended until these unfavorable symptoms had disappeared, and then another ounce was slowly injected. The respiratory movements then ceased altogether, and no pulse could be felt at the wrist. The cannula was drawn from the vein, and artificial respiration produced immediately. In the course of five minutes of active effort the pulse and respiration returned to an extent sufficient to warrant the removal of the patient from the amphitheatre to the ward, where hypodermic injections of whiskey and morphine temporarily restored her lost vitality. The effect of the milk injection was so well marked and sudden, and the prostration so complete, that all present at the operation expected a fatal termination, but were happily disappointed.

The patient lived ten days after the operation. A post-mortem examination showed catarrhal pneumonia at the apex of the right lung, ulcerations in the large and small intestines, with extensive necrosis of the bones previously mentioned. There were no lesions referable to the intravenous injection of milk.*

Editorials.

A NEW CODE OF ETHICS.

From time to time there has been more or less chafing under the Code of Ethics of the American Medical Association—a code which has been so generally adopted by the

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* Dr. Clendenin, of Fort Lee, New Jersey, first suggested to me the use of human milk. Since the operation referred to in the text, he has twice employed human milk in transfusion. He thinks that temporary benefit resulted.

State societies throughout the country that it has come to be looked upon by the greater portion of the profession with a veneration scarcely less than that accorded by all good citizens to the law of the land. It seems unquestionable that the feeling that life would yet be bearable were the code to be wiped out is constantly becoming more emphatic and more widespread. Such a feeling is apt to lead not only to the overthrow of the system against which it is directed, but to the enactment of some other one so glaringly revolutionary as to deprive it of any just title to be called a measure of reform.

Such is not the case, however, with regard to the document that leads us to make these remarks, namely, a code recently adopted by the Councilors of the Massachusetts Medical Society. Indeed, it might well have differed far more radically than it does from the dominant code without any disadvantage. Not only does it seem to us to be a better code than that of the American Medical Association, but it is noteworthy as likely, perhaps, to prove the forerunner of further action by State societies in regard to codes of ethics. The first feature that strikes us in the new code is its praiseworthy brevity, taking up, as it does, but three ordinary-sized pages of print. Brief as it is, it is largely made up of generalities, which leads us to suspect that it may have been framed with a view to indulge those who fondly yearn for a code of some sort, rather than with any special and definite aim to be accomplished by its enforcement. It states that "the kind of competition which might be considered honorable in business can not exist between physicians without diminishing their usefulness and lowering the standing of the medical profession." And yet it mentions "business talent" as one of the qualities upon which professional success depends.

It is doubtless a creditable feeling that has led to the production of the following paragraph: "If formally requested to assume charge of a patient or family usually attended by another physician, he [a physician] should consent to do so only after notifying the latter—unless the case be one of pressing necessity." Now, a man of self-respect and possessed of a passable conscience, together with an ordinary feeling of courtesy, would not resort to unseemly means of supplanting a fellow practitioner, or even knowingly allow himself to be brought into the management of a case from which a *confrère* had been dismissed, without taking pains to assure himself that the change was the result of deliberate judgment on the part of the family, and without seeing to it that the matter should be properly represented to his predecessor; and any notification that a man of a different stamp would send would, we should say, be an added pang to the physician previously in attendance. Moreover, there is a difference between thus entering upon the conduct of a case begun by another and the mere taking charge of a patient or family "usually attended by another physician." The profession may as well recognize, as it must, sooner or later, that a man has just as much right to change his physician as to change his tailor. The community can not be coerced in this matter, and, even if it could, what must be that man's state of mind who would consent to remain in attendance upon a case after he had been made aware that his services were not desired, but simply submitted to?

But it is a thankless and unprofitable task to follow the details of even so short a code as this one. The drift of any criticism we should feel like making would be, that specific applications of general principles in a set and formal manner generally fall short of simple justice, and that, if a code is really needed at all, it should be of the most general character, leaving the specifications to the supplementary action of local organizations. It is chiefly because the Massachusetts code is for the most part general in its terms that we regard it as praiseworthy.

Reviews and Literary Notes.

Report on the Revision of the United States Pharmacopœia, preliminary to the Convention of 1880. Being a Rough Draft of the general Principles, Titles, and Working Formulæ proposed for the next Pharmacopœia; prepared and compiled by Charles Rice, Chairman of the Committee (American Pharmaceutical Association). New York, 1880. ["This report is not for sale. Copies may be obtained by applying to George Ross, Lebanon, Pa., and inclosing the postage, six cents, in stamps."]

With the possible exception of the German, there is little doubt that the "United States Pharmacopœia" is the poorest work of the sort in existence. The necessity, therefore, of a complete and thorough revision is evident. The function of a pharmacopœia is to establish a standard for the drugs and preparations in use by the profession, and the list should be sufficiently copious to embrace all that have been found useful. The selection of the drugs to be incorporated should be left to the medical profession, while the methods of their preparation fall within the province of those skilled in pharmaceutical processes and manipulation. By the joint efforts, therefore, of the two professions a pharmacopœia worthy of this country might be constructed. Thus far, however, very little interest appears to have been taken in the matter by physicians, who in reality are the ones most directly interested. *Cœteris paribus*, a physician's financial success will depend on his therapeutical successes, for what avails a profound knowledge of pathology, an accurate diagnosis, and rational treatment, if the means taken to control morbid action prove inefficient in consequence of poorness in quality or improper preparation of the drugs employed?

The two hundred page volume before us discusses the pharmaceutical aspects of this question, and to the credit of the committee of the American Pharmaceutical Association it may be stated that the work has been done in a most thorough and efficient manner; and when it is considered that the work is a voluntary one, for which no pecuniary reward can be received, the devotion of the great amount of time and labor to the matter merits the cordial recognition of the medical profession.

The report commences with an introductory chapter, relating to the general plan on which a pharmacopœia should be constructed. This is followed by an alphabetical list of all the drugs of the present pharmacopœia, together with such additions as have been suggested. If the present directions for the preparation of any one drug are satisfactory, the drug is mentioned simply by name, but, when the formulæ can be improved, a recommendation to that effect is given, with precise directions. A peculiar feature of the report is the reduction of all the working formulæ to parts by weight, as in the French and German pharmacopœias, and, wherever practicable and desirable, an adjustment to the decimal rather than to the octal scale heretofore in use. This greatly simplifies the work of the dispenser, and enables the prescriber to carry in his mind the strength of at least a few of the more important preparations. An instance of this is seen in the recommendation that all the liquid preparations of arsenic be made of the strength of one in a hundred; at present they are:

Liquor	potass. arsen.		1 to 115.
“	arsen. chlor.		1 to 115.
“	“	et hydrarg. iod.	1 to 105.

Another recommendation is that the following fluid preparations of opium be made of uniform strength, and that one grain of opium shall be represented by ten grains of the finished product. At present the proportions are:

Acetum opii	one	grain	of	opium	in	6·4	minims.
Tinct. opii	“	“	“	“	“	12·8	“
Tinct. opii acetata	“	“	“	“	“	10	“
Tinct. opii deodorata	“	“	“	“	“	12·8	“
Vinum opii	“	“	“	“	“	8	“

These are specimens of the character of the work before us, on the preparation of which some of the best pharmaceutical minds of the country have been engaged for the last two years. It will be offered to the Pharmacopœial Convention at its meeting in Washington, in May next. It is published in advance, in order that there shall be abundant opportunity to examine its several features, with a view to suggesting desirable amendments or alterations.

We can not too strongly urge physicians who take an interest in the subject to procure the work, examine it carefully, and send such criticisms or suggestions as they may think it desirable to make to the delegates from their State Medical Society or neighboring medical college.

The Student's Guide to Diseases of the Eye. By Edward Nettleship, F. R. C. S., Ophthalmic Surgeon to St. Thomas's Hospital. With 89 Illustrations. Philadelphia: Henry C. Lea, 1880. Small 8vo, pp. 370.

This is a small, compact, and very readable volume from the pen of the former House Surgeon and Microscopist to the Royal London Ophthalmic Hospital at Moorfields, who is recognized by ophthalmologists as a very careful and clear-headed observer. The work is divided into three main parts, viz.: I. Means of Diagnosis. II. Clinical Division. III. Diseases of the Eye in Relation to General Diseases.

Under the first division are, of course, considered the methods of examination, and, in speaking of the mode of estimating the tension of the eyeball, Mr. Nettleship makes a very true remark, not generally mentioned in text-books, that in some cases the tension really does change at short intervals, within normal limits, as in the course of half an hour. He also refers to the rarity of monocular diplopia, statements of patients to the contrary notwithstanding. His description of the superficial and deep vascular supply of the eyeball, and of the distinction to be drawn between the anterior and posterior conjunctival vessels on the one hand and the anterior ciliary vessels on the other, could not be clearer.

In Chapter IV. of Part II., which treats of diseases of the eyelids, the author makes use of the term "blepharitis" somewhat loosely. Blepharitis, though usually applied to an affection of the margin of the lid, really means inflammation of the whole lid, and hence should here be qualified by some such term as "marginal." In speaking of chalazion, he advises its removal from the inner surface of the lid. It seems better to open the cyst through the ciliary margin, splitting the lid vertically, as by this means a conjunctival cicatrix is avoided, which might irritate the cornea. In describing epithelioma of the lid, he uses the term "rodent cancer," which perhaps is anatomically correct, but which is not generally used in this country.

In the chapter on diseases of the lachrymal apparatus he very justly emphasizes the fact that the slightest change in the position of the lower punctum causes epiphora—a state of the parts which is too often overlooked. The author does not take a very favorable view of the results of treatment in stricture of the nasal duct, and in this the reviewer must agree with him. In a large number of cases, the results of all treatment are somewhat discouraging, and the patient might with justice think that the benefit obtained was not always worth the pain and inconvenience.

In the chapter on diseases of the conjunctiva, Nettleship states in italics that "the term ophthalmia includes all inflammations of the conjunctiva, and should not be applied to any other diseases." This we regard as an unfortunate statement, for the term "sympathetic ophthalmia" is universally employed in the ophthalmic literature of all languages to define an inflammation of the iris and ciliary body or of the choroid, consequent upon injury or disease of the fellow eye. In speaking of the treatment of purulent conjunctivitis, there is a description given of Buller's mackintosh shield for the unaffected eye, which is useful in many cases, and which is not mentioned in text-books on the subject. It is gratifying to see that the author firmly believes in the efficacy of nitrate of silver in substance or in strong solution in shortening the attack and lessening the risks of purulent conjunctivitis in adults, with the precautionary statement that strong applications are unsafe in the earliest stage, before free suppuration has begun. As regards operative interference, he does not lay sufficient stress upon the importance of dividing not only the external canthus, but the canthal ligament. This serves the very important double purpose of bleeding and relaxing the parts.

In the treatment of ulcers of the cornea, the statement is made that "atropine is believed to owe part at least of its good effect in ulcers of the cornea to its asserted power of lessening the tension of the eye"—which must be regarded as questionable, unless the author means the *vascular tension.* Another statement to be dissented from is that "atropine is to be used regularly three or four times a day in severe cases of ulcer of the cornea, on the ground that iritis, if not present, is very likely to occur." The main objects in using atropia here are to soothe pain and diminish inflammation, which Mr. Nettleship regards as secondary.

In the chapter on diseases of the ciliary region, the author includes cases in which the ciliary body itself, or the corresponding part of the sclerotic, or the episcleral tissue, is the sole seat, or at least the headquarters of inflammation. This is different from the plan followed in text-books, and has its advantages. There is a brief but exceedingly good picture given of sympathetic irritation and sympathetic inflammation, and the various parts involved, but from one statement the reviewer must positively dissent: namely, that in mild cases of sympathetic trouble a good recovery eventually takes place. We have yet to see a case of *mild* sympathetic inflammation, and we think that we shall be supported by ophthalmologists generally in the assertion that in this disease the progress is from bad to worse, when it has once started. Moreover, an operation on such an eye, even when the inflammation has subsided and the ball has become quiet, is not followed by a favorable result.

The chapter on injuries of the eye is exceedingly valuable. Nettleship thinks that an injured eye should be excised at once, if the wound, lying wholly or partly in the ciliary region, is so large and so complicated with injury to deeper parts that no hope of useful sight remains, or even if the wound is small, if it lies in this region and has already set up cyclitis. If a foreign body is in the iris or lens, he advocates its removal with the cataract spoon, but, if it is certain that the foreign body has passed into the vitreous, it is scarcely ever worth while to attempt to save the eye. This latter condition admits of some discussion, and some ophthalmic surgeons would certainly attempt the removal of such a particle, if it could be seen in the vitreous, unless it were adherent to or encapsulated in the retina in the posterior part of the eyeball. When sympathetic inflammation has set in before the patient asks advice, Nettleship lays down the very rational rule, that enucleation of the injured eye is to be done only when there is no reason to hope for restoration of useful sight in it, for the injured eye may probably in the end be the better of the two.

In the chapter on diseases of the retina, a very good point is made in the statement that "the only ophthalmoscopic evidence of *active retinitis* is loss of transparency of the retina." It is true that no amount of capillary congestion, whether passive or active, alters the appearance of the retina, and hence the term "congestion" is altogether too vague. Capillary congestion of the optic disk may be recognized; but great caution should be exercised here, and allowance must be made for differences of contrast depending on the depth of tint of the choroid, for the patient's health and age, and for the brightness of the light used.

The occurrence of irregular whitish patches and hæmorrhages in the retina were formerly always associated with albuminuria, but we now know, as the author says, that they may be caused by cerebral disease. The reviewer must dissent from the opinion that these exudative masses naturally tend toward absorption. The vision in these cases may and very often does improve markedly, but the spots almost always remain, though they may grow smaller. The account of embolism of the central retinal artery or its branches is clear and intelligible.

In the chapter on glaucoma, the author speaks somewhat too hopefully of the influence of eserine in curing glaucoma in certain cases without resort to an operation. The use of the word "papillitis," first introduced by Leber, as designating the ophthalmoscopic appear ances of the inflamed or swollen optic disk, is unfortunate; it is not necessary, and only adds another word to our already very large terminology.

In the chapter on orbital tumors, the application of chloride-of-zinc paste on strips of lint is recommended after the removal of the growth. This we regard as inconvenient, and think a strong solution better, as easier of application and more readily regulated in its action.

In the chapter on errors of refraction and accommodation, the statement is made that, if the hypermetropic squint be present only during accommodation for near objects, it can be cured by the constant use of the proper correcting glass. This, we think, should be modified, as the inherent condition of the muscles involved exercises an important influence on this point.

In the chapter devoted to operations upon the eye and its appendages, in speaking of the eyelids, Nettleship uses the term cartilage. This is incorrect, for, there being no cartilage cells in the tarsus, it should not be spoken of as a cartilage. In speaking of conical cornea, no mention is made of the trephining operation, which in the hands of some surgeons has been very successful.

In Part III., in discussing the subject of etiology, attention is called to the intimate relation which appears to exist between the occurrence of convulsions and the formation of lamellar cataract, this form of cataract, according to Nettleship, being scarcely ever seen except in those who have had fits in infancy. This statement, from our own experience, we can not but regard as of questionable accuracy.

The book closes with a list of formulæ for treatment and an excellent index.

We think this little work is of real value, especially to the student. The descriptions are all clear, concise, and sufficiently full, and the book contains the condensed experience of the author during years of service at the largest ophthalmic clinic in the world. The illustrations are not all that we could wish them to be in execution, but they represent correctly what they claim to do, and this is the main point in any illustration.

A Practical Treatise on Urinary and Renal Diseases, including Urinary Deposits. Illustrated by Numerous Cases and Engravings. By William Roberts, M. D. Third American, from the Third revised and enlarged English Edition. Philadelphia: Henry C. Lea, 1879. Pp. 631.

It is several years since the last edition of this popular book was issued, and a third has been patiently looked for. The division and arrangement of topics remain unaltered. All the articles have been thoroughly revised, and a number of additions introduced, the principal among which are: the author's new method of estimating albumen in urine, Russell and West's modification of Davy's process of estimating urea in urine, and Dr. Lewis's discovery of the filaria sanguinis hominis and its connection with chylous urine. We are very much pleased with the size and form of the book, as also with the paper and type.

Lectures on the Diseases of the Nervous System. Delivered at La Salpêtrière. By J. M. Charcot, Professor, etc. Translated from the second edition by George Sigerson, M. D., M. Ch., etc. With Illustrations. Philadelphia: Henry C. Lea, 1879. Pp. xii.–271.

These lectures appeared in the "Medical News and Library," and in that form are familiar to many. It would be rather late in the day to remark upon the views advanced by Professor Charcot, as five years have elapsed since the second edition appeared in French. However, the lectures upon trophic troubles and hysteria are to be commended to the general practitioner, if for no other reason than for the deep interest they excite in the reader. The translating is well done—much better than we are accustomed to see. The book is convenient in size, and the print is clear and neat.

Clinical Lectures on the Diseases of Women. Delivered in Saint Bartholomew's Hospital. By J. Matthews Duncan, M. D., LL. D., F. R. S. E., etc. Philadelphia: Henry C. Lea, 1880. Pp. 175.

The English edition of this work was noticed in the March number of the "Journal." The American reprint will doubtless answer the reader's purpose well enough. In its general appearance it ranks among the better of Mr. Lea's publications.

Books and Pamphlets Received.—A Manual of Pathological Histology. By V. Cornil and L. Ranvier. Translated, with notes and additions, by E. O. Shakespeare, A. M., M. D., etc., and J. Henry C. Simes, M. D., etc. With three hundred and sixty illustrations on wood. Philadelphia: Henry C. Lea, 1880. Pp. xxxi.–784. ═══ A System of Medicine. Edited by J. Russell Reynolds, M. D., F. R. S., etc. With numerous additions and illustrations by Henry Hartshorne, A. M., M. D., etc. In three volumes. Vol. II. Diseases of the Respiratory and Circulatory Systems. Philadelphia: Henry C. Lea, 1880. Pp. 935. ═══ Pharmacology and Therapeutics; or, Medicine Past and Present. The Goulstonian Lectures delivered before the Royal College of Physicians in 1877. By T. Lauder Brunton, M. D., F. R. C. P., F. R. S., etc. London: Macmillan & Co., 1880. Pp. xvi.–212. [Price, $1.50.] ═══ The Spectroscope in Medicine. By Charles A. MacMunn, B. A., M. D. (Univ. Dub.). With three chromo-lithographic plates of physiological and pathological spectra and thirteen wood-cuts. Philadelphia: Lindsay & Blakiston, 1880. Pp. xiv.–198. ═══ The Pathology of Mind. Being the third edition of the second part of the "Physiology and Pathology of Mind," recast, enlarged, and rewritten. By Henry Maudsley, M. D. New York: D. Appleton & Co., 1880. Pp. x.–580. ═══ The Chemistry of Common Life. By the late James F. W. Johnston, M. A., F. R. S. L. and E., etc. A new edition, revised, and brought down to the present time, by Arthur Herbert Church, M. A. (Oxon.), etc. New York: D. Appleton & Co., 1880. Pp. xxvi.–592. ═══ A Handbook of Hygiene and Sanitary Science. By George Wilson, M. A., M. D., and C. M. (Edin.), F. C. S., etc. Fourth edition, enlarged and carefully revised. Philadelphia: Lindsay & Blakiston, 1880. Pp. xxxii.–468. ═══ The Hypodermic Injection of Morphia. Its History, Advantages, and Dangers. (Based on the experience of three hundred and sixty physicians.) By H. H. Kane, M. D. New York: Charles L. Bermingham & Co., 1880. Pp. 354. ═══ The Therapeutics of Gynecology and Obstetrics, comprising the Medical, Dietetic, and Hygienic Treatment of Diseases of Women, as set forth by distinguished contemporary specialists. Edited by William B. Atkinson, A. M., M. D., etc. Philadelphia: D. G. Brinton, 1880. Pp. 365. ═══ The Microscope and Microscopical Technology. A Text-book for Physicians and Students. By Heinrich Frey, Professor, etc. Translated and edited by George R. Cutter, M. D., etc. Illustrated by three hundred and sixty-eight engravings on wood. Second edition. New York: William Wood & Co., 1880. Pp. xii.–660. ═══ Lectures on the Human Eye in its Normal and Pathological Condition. By Adolf Alt, M. D., etc. With ninety-five illustrations by the author. New York: G. P. Putnam's Sons, 1880. Pp. xvi.–208. [Price, $3.00.] ═══ Notes on the Diseases of the Testis. By Samuel Osborn, F. R. C. S., etc. London: J. & A. Churchill, 1880. Sm. 8vo, pp. 117. ═══ A Practical Treatise on Nervous Exhaustion (Neurasthenia), its Symptoms, Nature, Sequences, Treatment. By George M. Beard, A. M., M. D., etc. New York: William Wood & Co., 1880. Pp. xx.–198. ═══ A Manual of Auscultation and Percussion; embracing the Physical Diagnosis of Diseases of the Lungs and Heart, and of Thoracic Aneurism. By Austin Flint, M. D., etc. Second edition, revised. Philadelphia: Henry C. Lea, 1880. Pp. 240. ═══ Pseudo-Hypertrophic Muscular Paralysis. A Clinical Lecture. By W. R. Gowers, M. D., F. R. C. P., etc. London: J. & A. Churchill, 1879. Pp. vi.–66. ═══ A Practical and Grammatical Course for easy and thorough

Self-Instruction in the German Language. Prepared with special regard to the close affinity existing between the English and German languages. By Solomon Deutsch, A. M., Ph. D., etc. First course: Grammatical. New York: 1879. Pp. 480. [From the author.] ═══ Plain Words on Health in Homes, etc. Issued by the Germicide Co., New York. 4to, pp. 17. ═══ Catalogue of the Library of the Physicians to the German Hospital and Dispensary, New York. By Hermann G. Klotz, M. D., Librarian. Mount Vernon, N. Y., 1880. ═══ Hygiene and Education of Infants; or, How to take Care of Babies. By the Société Française d'Hygiène, Paris, France. Committee: MM. R. Blache, Ladreit de Lacharrière, Ménière (d'Angers). Translated from the French by George E. Walton, M. D., etc. Cincinnati: Robert Clarke & Co., 1880. 18mo, paper, pp. iv.–72. [Price, 25 cents.] ═══ State Medicine and State Medical Societies. By Stanford E. Chaillé, A. M., M. D., New Orleans, La. Philadelphia: Collins, Printer, 1879. Pp. 59. [Reprint.] ═══ Proceedings of the Louisiana State Medical Association at its Second Meeting, held in the City of New Orleans, April 9, 10, and 11, 1879, with the Constitution and By-Laws. New Orleans: L. Graham, Printer, 1879. Pp. 206. ═══ Transactions of the Tenth Annual Session of the Medical Society of Virginia, held in Alexandria, October 21, 22, and 23, 1879. Part I.—commencing Volume III. Richmond: J. W. Fergusson & Son, Printers, 1879. Pp. 151. ═══ Color-Blindness and Defective Sight among Railroad Employees. Pp. 8. ═══ Priority in the Anæsthetic Use of the Bromide of Ethyl. By R. J. Levis, M. D., etc. Pp. 4. [Reprint.] ═══ Nitro-Glycerine as a Remedy for Angina Pectoris. By William Murrell, M. D., M. R. C. P., etc. Pp. 26. [Reprint.—From the author.] ═══ Observations on the Effect of Diet, Rest, Exercise, etc., in Chronic Nephritis. By Edward I. Sparks, M. B. (Oxon.), F. R. C. P., and J. Mitchell Bruce, M. D. (Lond.), F. R. C. P. London: J. E. Adlard, 1879. Pp. 26. [Reprint.—From the author.] ═══ Boracic Acid. A New Remedy in Eye Diseases. By Samuel Theobald, M. D., etc. New York: Trow, 1880. Pp. 16. [Reprint (with supplementary note).—From the author.] ═══ A Lecture on Median Lithotomy, delivered before the Brooklyn Anatomical and Surgical Society. By James L. Little, M. D., etc. New York: G. P. Putnam's Sons, 1880. Pp. 24. [Reprint.—From the author.] ═══ The Fallacies of Popular Clinical Medicine. By Jarvis S. Wight, M. D., etc. An introductory lecture delivered at the Long Island College Hospital, Brooklyn, N. Y., February 5, 1880. New York: G. P. Putnam's Sons, 1880. Pp. 16. ═══ Researches on Hearing through the Medium of the Teeth and Cranial Bones. By Charles Hermon Thomas, M. D. Pp. 4. [Reprint.—From the author.]

Clinical Reports.

BELLEVUE HOSPITAL.

Reported by GASPAR GRISWOLD, M. D.

GANGRENE OF THE LUNG; PERFORATION INTO THE PLEURAL CAVITY; PNEUMO-HYDROTHORAX.

(SERVICE OF DR. AUSTIN FLINT.)

M. L., a laborer, forty years of age, was admitted to Bellevue Hospital on January 9, 1880, in a condition of intoxication, and was assigned to the cells. The next morning he had become sober again, and stated that he had been drinking hard for some weeks before his admission, eating but little, and being subjected to various sorts of hardship and exposure. He had, for the last week or ten days, been annoyed by a short, hacking cough, attended with pain and a sensation of soreness in his right side; he denied having ever suffered from any form of pulmonary disease. His appearance was cachectic and suggestive of a constitution debilitated by dissipation and insufficient nutrition. On physical examination, his temperature was found to be 103° F.; his pulse was 120, and was feeble and irregular; his respirations were 35. Over the posterior lower portion of his right lung was mapped out a considerable area of dullness, within which the vocal fremitus and resonance were increased, the respiratory murmur being entirely absent. In the vicinity, large and small bronchial, and a few subcrepitant, *râles* were heard. His expectoration was rusty, without being tenacious or notably viscid; his breath was not offensive. The patient's urine was dark-colored, acid, and contained a considerable amount of albumen; its specific gravity was 1·026, and small hyaline and granular casts were present in abundance. Until January 19th his temperature averaged about 101° F. in the morning, rising to 103° in the afternoon. In spite of stimulants, he continued to grow weaker, coughing more frequently; his expectoration, now distinctly tinged with blood, became from day to day more offensive. He had no appetite, but did not vomit what he was persuaded to eat. No marked change took place in the physical signs. On January 20th he suddenly became much worse. He complained of greater dyspnœa, and of occasional indistinct chills followed by sweats. His temperature was 104°; his pulse was 140, and very feeble. Occasional attacks of muttering delirium supervened, and there was present great muscular weakness with subsultus tendinum. On examination, the area of dullness at the base of the right lung was found to have become larger, the dullness at the same time tending more to flatness. Vocal fremitus and resonance were both indistinct, and the respiratory murmur was inaudible. Over the upper portion of the right lung there were vesiculo-tympanitic resonance and amphoric voice and whisper. Large bronchial *râles* were abundant all over the lung. On shaking the patient, a very distinct succussion sound was elicited. From this time he sank rapidly, dying on the morning of January 21st.

On post-mortem examination, about a pint of sero-sanguinolent fluid was found in the right pleural cavity. On the posterior surface of the lower lobe of the right lung was a cavity or sac about two inches square, containing *débris* of gangrenous pulmonary tissue, and opening into it was the end of a small bronchial tube. The portion of lung immediately surrounding this process was in a condition of pneumonic consolidation. The rest of the right lung and the entire left lung were normal. The heart was hypertrophied, weighing sixteen ounces; the valves were intact. The kidneys showed marked signs of granulo-fatty degeneration, and were smaller than normal. The other viscera presented no important changes.

MENINGEAL HÆMORRHAGE FROM LACERATION, WITHOUT FRACTURE OF THE SKULL.

(Service of Dr. ALEXANDER B. MOTT.)

J. W., a vigorous laborer, twenty-five years of age, sustained a severe fall from a cart on February 4th, striking upon his head. Although somewhat stunned, he did not become unconscious, and continued his work without nausea or faintness. He remarked that a small amount of blood flowed from his right ear, but did not think much of it, as it soon ceased. He received no scalp wound (his head being protected by his hat), and did not remember exactly in what position he fell. On the next day (February 5th) he still continued to work, although he did not feel very well. On February 6th he felt so much worse that he applied for admission to the Hospital, complaining of dizziness, headache, and general muscular weakness. Soon after his admission he became delirious, and had occasional convulsions, which seemed general. His temperature did not rise above 101° F.; his pulse was slow and full. His left pupil was dilated; his surface was warm, and at intervals bathed in sweat. His urine was retained, while his fæces escaped involuntarily; no paralysis beyond that of the sphincters was detected at any time. His convulsions and delirium gradually merged into coma, and he died on February 8th.

On post-mortem examination, no fracture of the skull could be made out. The blood which escaped from the patient's right ear after the fall was slight in amount, and must have been the result of some injury to the external auditory meatus. On the surface of the left cerebral hemisphere, between the arachnoid (which was intact) and the dura mater, was a clot about four inches square by half an inch thick. This clot pressed principally upon the ascending frontal and ascending parietal convolutions, but without having produced either right hemiplegia or convulsions specially marked on the right side. The hæmorrhage had resulted from the rupture of veins along the superior longitudinal sinus. The brain was at all points markedly congested and œdematous; no lacerations of its substance were anywhere made out.

BOSTON LYING-IN HOSPITAL.

Reported by J. Foster Bush, M. D.

PUERPERAL SEPTICÆMIA.

(Service of Dr. W. L. RICHARDSON.)

A. Z., American, thirty years of age, in her second pregnancy, entered the Boston Lying-in Hospital October 15, 1879, to await confinement. She was apparently in perfect health, and gave the history of a very easy first labor of only one hour's duration. *November 2d.*—She began to have labor-pains at 5 A. M., the head presenting in the first position. A vaginal examination showed the vagina to be moist and roomy; the cervix uteri taken up; the os patulous, soft, and dilatable; the membranes protruding. The pains were good, occurring at intervals of five minutes. At 5.45 A. M. the os was fully dilated, and the membranes ruptured. At six o'clock the child (a boy weighing eight pounds) was born. The placenta was at once expressed by Credé's method. The uterus contracted firmly, and there was no hæmorrhage. The perinæum was intact. Pulse 68. All day the patient was comfortable, sleeping some of the time. At the evening visit the pulse was 64; temperature 99·4° F. *November 3d.*—Morning visit. Pulse 100; temperature 104·6°. The patient had been restless all night. At 3 A. M. she had had a slight chill, followed by persistent vomiting of a greenish-black liquid. This vomiting continued during the whole day, all attempts to check it proving ineffectual. Sponge baths were given every two hours, and a carbolized vaginal douche was administered every three hours. The lochia were somewhat scanty, but not offensive. In the afternoon the patient complained of considerable pain in the region of the uterus, with marked tenderness on pressure. The evening record gave a pulse of 88 and a temperature of 100·8°. *November 4th.*—Morning. Pulse 112; temperature 100·8°. She was reported to have been restless the first part of the night, but quiet and sleeping toward morning. The countenance was sunken, and expressive of great anxiety. The mouth was parched, the tongue dry and loaded with sordes. Milk had appeared in the breasts. The abdomen was tense, tympanitic, and painful. Turpentine stupes gave some relief. The nausea and vomiting were less persistent, so that the patient was able to take some nourishment in the form of beef-tea and milk. Consciousness was unimpaired, the patient asking and answering questions in a perfectly rational manner. The evening pulse was 128, and the temperature 101°. *November 5th.*—Pulse 96; temperature 99°. Slept little during the night. The nausea and vomiting again became prominent symptoms, and chloral was not tolerated even by the rectum. Subcutaneous injections of morphia were used. The abdomen was tense and tympanitic, but now wholly free from pain and tenderness. The respiration was entirely thoracic. A turpentine enema was followed by a good dejection. Beef-tea and brandy were given by the rectum, but were not retained. The evening pulse was 120, and the temperature 100·8°. *November 6th.*—Pulse 100; temperature 99·6°. Restless all night. Under morphia some sleep was obtained. Low, muttering delirium. An erysipelatous blush had appeared, extending from the abdomen down the right thigh. She died in the afternoon.

Autopsy, by Dr. R. H. Fitz, thirty hours after death.—Rigor mortis slight. The dependent portions of the body were discolored, and decomposition was rapidly going on. The abdomen was considerably distended. No traces of the erysipelatous blush were seen. About three ounces of sero-purulent liquid were found in the peritoneal cavity. The intestines were distended with flatus, and their peritoneal covering was deeply injected. Over their surfaces there were patchy deposits of pus, not localized, but generally distributed, indicating that the inflammation had had no one center of origin. The pericardium contained about one ounce and a half of serous fluid. The muscular tissue of the heart, also its valves and cavities, was normal. The lungs and pleuræ presented nothing abnormal. The spleen was dark brown, enlarged, soft, and pulpy. The kidneys were normal in size; the cortical portion was gray, opaque, and considerably swollen. The liver was normal in size, the parenchyma being opaque and somewhat infiltrated. The under surface was covered by a patchy deposit of fibrinous lymph in the form of a membrane, which was easily removed. The bladder contained some purulent fluid. The walls were opaque and swollen. The uterus measured five inches in length, extending above the brim of the pelvis. On its outer surface there was fibro-plastic lymph. The internal surface was covered with shreds of necrosed tissue. There were no abscesses in its walls. The broad ligaments were thickened by gangrenous infiltration between the folds. The ovaries were both gangrenous and completely broken down. The lymphatics along the brim of the pelvis were swollen and contained thrombi, resembling a string of beads. The pelvic connective tissue was œdematous and swollen.

The case was interesting from its sudden invasion, its rapid course, and the extensive local lesions observed at the autopsy after so brief an illness. It was especially interesting from the fact that the continuance of lochia of a non-offensive character is usually considered as indicative of a healthy condition of the uterus, which, however, was not the case with this patient. Had the condition of the interior of the uterus been suspected, intra-uterine carbolized injections would have been substituted for vaginal ones. The appearance of the milk was also an unusual feature. The freedom from pain and tenderness over the abdomen after the first twenty-four hours is also worthy of record, as being very exceptional.

Proceedings of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

A STATED meeting was held February 23, 1880, Dr. A. E. M. PURDY, President, in the chair.

OPHTHALMIC NOTES.—Dr. C. R. AGNEW read a paper having this title, and directed attention first to the use of *electricity in the treatment of cataract.* The conclusion reached was, that cataract had not, as yet, been cured by electricity. Spontaneous dislocation or liquefactive degeneration might occur while medical measures were being used, but otherwise cataract would require for its cure a surgical operation. Under the head of *scant feeding in ophthalmic cases*, Dr. Agnew referred to forced alimentation. The method which he had taught and practiced for many years was, first, to ascertain the amount of real labor which the duties of the patient imposed; second, to estimate the probable force which the patient possessed; and, third, to ascertain the quality and quantity of the food taken. He then prescribed, in writing, with great emphasis and precision, the daily regimen, and provided for every meal, ordering a definite quantity of food to be taken, as a dose, at least three times a day, sometimes every two hours. The foundation for *asthenopia* was very frequently laid at an early period of life in both males and females, and often arose from bad tissue-building. *Nearsightedness*, which was rapidly increasing, he believed was largely due to a misconception of the principles which should underlie the physical training and feeding of the children and youth of our land, and to too much near work at an age when the eyeball, so to speak, was relatively plastic or soft. Much of the present cramming in schools was productive of evil. The physical capacity of the scholar should be examined and verified, and the degree of work be made proportionate. With reference to the use of *strong agents in the treatment of simple catarrhal affections of the eye*, he thought it would be much better if the general practitioner should never apply either the solid stick or a strong solution of nitrate of silver, or sulphate of copper to the eye. In many chronic affections of the eye he recommended the Turkish bath, and especially in inflammation of the cornea, iritis, etc. Hypodermic injections of pilocarpin, sufficient to produce profuse sweating and salivation, were also of special service in cases of corneal disease. He had but little confidence in the value of *the ophthalmoscope as a cerebroscope for recognizing the presence or absence of cerebral congestion.* A reliable ophthalmoscopic examination was difficult to make, and in by far the greater number of cases of "jaded heads" the ophthalmoscope had, so far, given only negative results. That we might, by looking into the eye with an ophthalmoscope, tell whether or not the brain was congested, he did not believe was, as a rule, true.

NEW YORK ACADEMY OF MEDICINE.

A STATED meeting was held February 19, 1880, FORDYCE BARKER, M. D., LL. D., President, in the chair.

NIGHT MEDICAL SERVICE.—A paper by Dr. HENRI NACHTEL, of Paris, was read by Dr. Gaspar Griswold. After referring to the special benefit which would accrue to the profession from statistics relating to attacks of illness occurring in the night, the paper gave a brief outline of Passant's system of medical night service, now in operation in Paris and in several of the large cities of Europe. It was substantially that the names and addresses of those physicians who were willing to do night service were registered in the police stations, so that strangers, or those without a family physician, or those who wished to obtain a medical man in an emergency, could go at once to a station, and be accompanied by an officer to the residence of the physician. The officer would then go with the doctor to the residence of the patient, and also escort him on his return, and subsequently present the bill, which, if the patient were not able to pay or could not be found, was returned to the city, to be paid by the Government, the fees being regulated by law. ═══ THE PRESIDENT and DR. J. W. S. GOULEY made a few remarks on the subject, and the latter introduced resolutions complimentary to Dr. Nachtel, and referring the paper to a special committee, to be reported upon at an early date. The committee appointed consisted of Drs. Gouley, E. J. Janeway, and E. B. Bronson, and, on motion, the President's name was added.

THE FEMALE PERINÆUM; ITS ANATOMY, PHYSIOLOGY, AND PATHOLOGY.—Dr. T. GAILLARD THOMAS read a paper on the above subject, in which he first referred to the acknowledged importance of that body, and to the inadequate reference to it in works on anatomy and obstetrics, and in systematic works on gynæcology. Savage first demonstrated that the perinæum in women was a triangular body, and directed attention to its significance and its uses. The author of the paper then referred to the diagram, ordinarily used to illustrate the description of the perinæum, that represented falsely the relations which that body held to the pelvic organs, but which had nevertheless been employed by Gray and Wilson, and had been commonly copied into works which dealt with the subject in a special manner. In his own diagram the uterus was represented as occupying a position in the pelvis considerably lower than in Savage's, and more inclined forward; and the vagina, instead of consisting of a canal having a single curve from behind forward, had a double curve: first, a decided curve from behind forward, and then a lesser one downward and slightly backward; and, second, a slight curve from above downward and backward. Instead of being a flat surface consisting of skin, areolar tissue, etc., filling the space between the anus and the vulva, the perinæum was a triangular-shaped body, composed of strong layers of elastic connective tissue, muscles, adipose tissue, etc. It was a concavo-convex triangle, with its *anterior* side, slightly convex, sustaining the superior wall of the vagina, while its *posterior* side, decidedly curved, supported the anterior wall of the rectum. At its upper portion the vagina furnished a depression that received the cervix uteri, so that, to a certain extent, the uterus was sustained by a shelf-like action. Dr. Thomas gave the following as the functions of the perineal body: 1. To sustain the anterior wall of the rectum; 2. To sustain the posterior wall of the vagina; 3. Upon the posterior wall of the vagina rested the anterior, upon that the bladder, against the bladder the uterus, and all, to a great degree, depended for support upon the perineal body; 4. It preserved the proper line of projection of the contents of the bladder and the rectum, and in that manner prevented the occurrence of tenesmus, which was a frequent cause of pelvic displacements. Dr. Thomas then dwelt at some length on the keystone action of the perineal body, and, although the base of the keystone was downward, he believed that upon its integrity depended the proper support of the pelvic organs. The influences which most frequently rendered the perineal body inefficient were: 1. Constitutional feebleness; 2. Feebleness from prolonged over-distention; 3. Subinvolution; 4. Senile atrophy; 5. Laceration. Laceration was of three degrees: 1. When the body was split for only a short distance; 2. When split to its center; and, 3. When it was divided entirely through. In the third degree support from the uterus was not removed, but the shape of the vagina was changed, and its support removed, so that the secondary effect was direct traction upon the uterus. Rupture of the perinæum was one of the most fruitful sources of senticæmia, engorgements, prolapses, etc., to be found in obstetrics. The evils enumerated as liable to follow laceration of the perinæum were the following: 1. Septicæmia; 2. Anterior and posterior uterine displacements; 3. Prolapsus; 4. Cystocele; 5. Proctocele; 6. Chronic cystitis; 7. Chronic urethritis; 8. Uterine engorgement and hyperplasia; 9. Subinvolution of the uterus and vagina; 10. Destruction of the power of the uterine ligaments; 11. A tendency to abortion; 12. Impaired sexual gratification; 13. Neuralgia affecting the site of rupture. He advised that, as a rule, the rupture be closed immediately. If the operation failed, no harm was done, and, if it succeeded, great benefit was secured. Prolapse did not occur in all cases after laceration not repaired by operation, but such cases were the exception and not the rule. ═══ Dr. A. J. C. Skene remarked that in cases of long standing the divided parts might be completely restored by an operation, and yet the perinæum remain inadequate because of the atrophy of the muscular tissues which took place from long disuse. That was why surgical means sometimes failed to restore the functional value of the perinæum, and it was one of the strongest arguments in favor of early treatment. ═══ Dr. H. J. Garrigues offered some criticisms upon Dr. Thomas's diagram, the most important of which were: that the perineal body was not so triangular as represented, but was more rounded—the lower part corresponding to the bulbous portion, and the other to the head, of an alembic; that the anus in reality pointed more backward—in the upright posture about as much backward as downward, by reason of the fact that the rectum made a decided curve backward, thus contributing to give to the perineal body the alembic-shaped curve; and that, not only was the keystone placed base downward, but the weight came upon the point of the wedge: it therefore lost all its power as a keystone. He thought it advisable in the highest degree to close a ruptured perinæum as soon as possible; first, because true union, i. e., agglutination of the torn surfaces, was rare without accurate adjustment; and, second, because a very large proportion of all gynæcological cases had their origin in laceration of either the cervix or the perinæum. He thought that probably in a majority of cases it was not necessary to unite the laceration by means of stitches. If the rent extended high up in the vagina, stitches should be used. In most cases he recommended the use of serres-fines such as those made for him by Tiemann & Co., having long legs and small teeth at their tip. As ordinarily made, with short, strong legs, serres-fines were too defective for use. ═══ Dr. H. T. Hanks spoke of the rapid atrophy which took place in the muscular fibers constituting the perinæum after its rupture, and urged the early restoration of the parts; whether immediately after delivery, or the next day, or three weeks later, would depend altogether upon the condition and surroundings of the patient. He referred to a patient only twenty-five years old, in whom rupture of the perinæum existed four years before it was operated upon, and when the operation was performed it was found impossible to restore the parts to their normal relations. ═══ The President remarked that in medicine the mistake was often made, as it seemed to him, of assuming a fixed standard, an ideal theory, for premises, and then basing all argument upon the supposition that the theory was true, and, if true, that the conclusions reached must necessarily follow. It had been assumed that the perinæum in women had a fixed relation to the pelvic organs, but such an ideal standard in reality did not exist in nature. The relations of those parts were constantly changed, according as the patient was in the erect or the recumbent posture, the bladder and the rectum full or empty, the absence or presence of utero-gestation, etc., etc.; and might not those changes vary the basis upon which the arguments were made that led to the conclusion reached in the paper? He admitted that in a certain class of cases it was proper to unite a lacerated perinæum at once, either by stitches or by serres-fines; but the simple fact of laceration should not alone decide whether the operation should be performed immediately, rather than deferred to give an opportunity for spontaneous union to take place. If that failed, we might still resort to the secondary operation. In several instances he had seen dangerous symptoms arise from the early operation, though done with great care and prudence. The point he wished to make was, that it was not safe doctrine to teach that we should always resort to the primary operation when laceration of the perinæum occurred. ——— Dr. S. T. Hubbard remarked that in a large obstetrical practice, extending over many years, he had not yet met with a case of lacerated perinæum which required an operation. His method was to place the woman upon her side, keep the limbs close together, letting her make water in bed, in the knee-elbow posture, or, if she were too feeble to do that, to use the catheter for a few days, keep the parts clean by the use of carbolized vaginal injections, and allow the wound to heal naturally. He did not deny, however, that there were cases which required surgical procedure. ———Dr. Thomas remarked that he had had an experience like Dr. Skene's in a similar class of cases, and regarded the point as a most important one. He admitted that he felt uncertain with reference to the keystone action mentioned, and therefore had submitted the point to two engineers, who had said it was correct; yet he conceded the force of Dr. Garrigues's criticism. With reference to the power of the perinæum, he remarked: given a woman with a perfect perinæum, and the relation of the parts within the pelvis would be perfect; destroy that perinæum, and at once the parts would fall out of their proper relationship; restore the perinæum, and, as soon as it was perfect, all the pelvic organs would be restored to their normal relations, thus arguing for the theory that the perineal body was a great factor in coördinating all the parts within the pelvic cavity. With reference to the immediate operation for lacerated perinæum, he would say simply that, as a rule it was safe, but as an exception it was bad practice.

NEW YORK PATHOLOGICAL SOCIETY.

A stated meeting was held February 11, 1880, Dr. T. E. Satterthwaite, President, in the chair.

Papilloma of the Ovary.—Dr. C. C. Lee presented a tumor which had been removed from the body of a woman forty-eight years of age, single, who was admitted to the Woman's Hospital, January 16, 1880. She began to menstruate at fifteen, and continued to do so regularly until forty-five. Last spring, without apparent cause, an irregular flow of blood from the uterus appeared, which increased in quantity, and was soon accompanied by pain. On examination, Dr. Lee found a large multiple subperitoneal fibroid and evidence of pelvic cellulitis, particularly in the posterior cul-de-sac, where there was tenderness upon pressure, etc., but at no point could evidence of fluctuation be obtained. Neither cyst nor abscess was suspected. The patient was treated by the use of hypodermic injections of ergotine for the metrorrhagia, and, at times, some benefit was apparently derived from this measure. The uterus was high up in the pelvis, and whenever the sound was introduced its withdrawal was followed by a more or less copious gush of pus, evidently of intra-uterine origin. The patient was under treatment two months without apparent benefit. Neither abscess nor cyst was discovered during the treatment, and the patient was about to leave the hospital; but a profound mental depression came on, and she died in a few days afterward in an asthenic condition, but there were no new symptoms of abdominal disease. At the autopsy the peritonæum showed evidence of subacute inflammation; a large fibroma was found growing from the fundus of the uterus, which was so raised and lengthened that the fundus projected above the brim. The space between the uterus and the rectum contained a cyst, which was so large that it occupied all the vertical diameter of the true pelvis. The left Fallopian tube was free; the right one near the uterus was connected with the apex of the cyst. There was no trace of the right ovary. The cyst seemed to have grown first between the folds of the broad ligament on the right side, and thence into the connective tissue between the vagina and the rectum. The inner surface of the cyst wall was covered with papillomatous growths. It was the only case of true papillomatous degeneration of an ovarian cyst which he had known to have been recorded in this country. The uterus was 14 centimetres in length (5½ in.), —8 centimetres (3⅕ in.) belonging to the cervix. The lumbar glands were enlarged. The autopsy showed that fluid could have been obtained by aspiration, and the case was interesting with reference to that operation, especially in connection with an obscure history. ═══ THE PRESIDENT asked how the enlargement of the lumbar glands was explained. ═══ DR. LEE said that it was assumed to be due to a general septic infection produced by the gradual growth of the tumor, the same as caused the peritonitis. He thought it was a papillomatous growth that had undergone malignant change, and the glandular enlargement might be due to metastasis. ═══ THE PRESIDENT remarked that he had not been able to find anything by which a malignant cauliflower growth could be distinguished microscopically from an ordinary papillomatous growth, so far as the villosities were concerned; we were in the habit of expecting to find rounded spaces packed with epithelioid corpuscles at the base of the villi; but they were not always discoverable; in the papilloma, however, there was no involvment of adjacent glands.

ABSCESS OF THE LIVER.—DR. J. F. RIDLON presented a liver which was the seat of an abscess occupying about two thirds of the right lobe, also the large intestine, from the body of the same patient, the mucous membrane of which, from the caput coli to the sigmoid flexure, was more or less ulcerated, in places quite extensively. The patient was a man, æt. forty-eight years, who was admitted to St. Luke's Hospital with obscure symptoms referred to the hepatic region. Subsequently a tumor developed in that locality, and hepatic abscess was diagnosticated, although there was a difference of opinion among the visiting physicians relative to the exact nature of the case. The tumor was aspirated, and the fluid obtained was examined, and found to contain only blood, leucocytes, and detritus. The diarrhœa that had existed since July last now increased. The tumor was tapped a second time, and 36 ounces of fluid withdrawn, but no liver cells were found. The first 28 ounces of fluid removed were clear; the remainder presented the appearance of pus. On February 4, 1880, the man died, the diarrhœa having gradually increased in severity. At no time had there been blood in the stools. At the autopsy evidence of old peritonitis was found. The abdominal cavity contained 60 ounces of sero-purulent fluid. The liver was large, and the portion unoccupied by the abscess was fatty. The kidneys and spleen were normal. A single Peyer's patch presented an abnormal appearance. ═══ Dr. Lee referred to a case of abscess of the liver in which there was a pyogenic membrane lining the cavity, and remarked that, if that was true of hepatic abscess in general, the method of treatment proposed by some to empty the sac by aspiration, and allow the walls to come at once in contact with each other, with the view to secure union because no pyogenic membrane existed, was comparatively valueless, unless a permanent drainage could be established. ═══ Dr. J. A. Wyeth thought it exceedingly difficult to empty the abscess in these cases through the needle of an aspirator, and referred to a case in which a free incision became necessary in order to remove the contents of the abscess. ═══ The President said that he was present at the autopsy in the case reported by Dr. Ridlon; that the contents of the hepatic cavity consisted of a sloughy, gangrenous mass, with some fluid. The sloughs could not have been drawn through an aspirator needle. There was no line of demarkation between the necrotic mass and the liver tissue proper. ═══ Dr. Erskine Mason referred to three hospital cases in which the presence of pus in the liver had been demonstrated by means of the aspirator, and afterward a free incision made, and all the patients recovered. ═══ In answer to a remark that when fluctuation existed adhesions were always present, Dr. Wyeth thought that that would not hold good with reference to cases of acute diffuse tropical hepatitis, or where abscesses formed rapidly in the progress of the disease. ═══ The President remarked that in the present case there were extensive adhesions, and free incisions would have been proper.

(Probable) Orbital Fibro-Sarcoma.—Dr. C. S. Bull presented an orbital growth which had an unusual history. It was removed from a man, æt. forty-nine, who, twelve years ago, had had his eye enucleated on account of prolapse of the iris and traumatic cataract, with cyclitis and symptoms of sympathetic irritation. The first thing of which the patient complained, only a few months ago, was some difficulty in retaining his artificial eye. On examining the orbital cavity, a subconjunctival growth, freely movable except at the apex of the orbit, was discovered. The growth was very brittle, and no trace of the optic nerve could be found. Its origin was as yet unexplained, but Dr. Bull thought it *probably* was a fibro-sarcomatous growth.

NEW YORK OBSTETRICAL SOCIETY.

A stated meeting was held February 17, 1880, Dr. W. T. Lusk, President, in the chair.

Laparo-Elytrotomy.—Dr. W. R. Gillette presented the woman upon whom he had performed laparo-elytrotomy (see January number, p. 71). The wound had closed. He remarked that, in the future, he should not attempt to obtain union by primary adhesion. ═══ Dr. C. S. Ward favored the introduction of sutures with the view to obtaining a certain amount of primary union, but, on the slightest appearance of septic symptoms, would at once remove them, and resort to free antiseptic irrigation. ═══ The President thought there was no valid objection to keeping the wound open from the beginning. ═══ Dr. Garrigues suggested the introduction of sutures at the extremities of the wound, and the insertion of a large drainage-tube.

Dermoid Cyst of the Ovary.—Dr. C. C. Lee presented a medium-sized dermoid cyst taken from a patient, forty-one years of age, who was admitted to the Woman's Hospital, January 15, 1880. Four months previous to admission, she noticed, for the first time, a tumor low down in the abdomen. On examination, a movable tumor of moderate size was found in the hypogastric region, and, although diagnosticated as ovarian, operation for its removal was not advised, because of the patient's good general condition and the slight inconvenience occasioned by the growth. However, on the 12th of February, the operation was performed in the usual manner, the pedicle was secured by ligature and dropped, and the woman made a good recovery. The tumor proved to be a dermoid cyst of the ovary, with only slight adhesions. The case, he thought, belonged to a class in which explorative gastrotomy under Listerism was justifiable, where a few years ago operative interference would have been regarded as unwarranted. The sac and its contents weighed five or six pounds. ═══ Dr. Ward thought that early ovariotomy should not be dreaded so much as formerly, even without Listerism; for it had been shown that the proportion of recoveries in early operations was large. ═══ Dr. Lee remarked that treatment of the tumor in question by the old method of tapping would, in all probability, have resulted in peritonitis, because the fluid in the cyst was very thick and of the character which commonly gave rise to inflammation, even though only a small quantity entered the peritoneal cavity. Again, if such a cyst had been allowed to remain, doubtless firm and extensive adhesions would have been formed, thus seriously complicating a later operation.

Induction of Premature Labor in a Case of Excessive Vomiting during the Latter Months of Pregnancy.—Dr. Ward reported a case in which he was called to see a primipara, thirty-eight years of age, in the eighth month of pregnancy, on account of such excessive prostration, due to continuous vomiting, that her physician did not deem it safe to allow the pregnancy to continue. Every therapeutic means had been adopted without avail. The urine had been repeatedly examined for albumen, and was again carefully examined by Dr. Ward, but no albumen was found. No fœtal heart-sounds could be detected. The induction of premature labor was commenced with the hot douche, the stream of water being played *within the cervix uteri against the internal os*, which rapidly yielded, allowing of the introduction of the largest-sized Barnes dilator, which was filled and allowed to remain four hours. At the end of that time Dr. Ward returned and performed podalic version, delivering a dead hydrocephalic child, whose epidermis was peeling from the body. Version was performed in this case: 1. Because the woman would have had a powerless labor, as she was excessively prostrated from the previous vomiting; 2. It was evidently easy of accomplishment, and, therefore, without danger of shock, as the membranes were not ruptured and the child was small. It should be stated that the vomiting did not occur as the result of sepsis from a dead fœtus, as the attending physician had repeatedly detected the fœtal heart-sounds and movements up to within a week of the induction of labor. The woman made a rapid recovery. In less than twenty-four hours she was able to retain whatever nourishment was given.

Cyst of the Broad Ligament.—Dr. J. B. Hunter reported a case in which he had removed from an unmarried woman, thirty-four years of age, a cyst of the right broad ligament, with the ovary of the same side. The pedicle, formed of what was left of the broad ligament, was secured by a carbolized silk ligature and dropped, and the patient recovered without the development of a bad symptom. The cyst, with the contents (fluid as clear as water), weighed twenty-two pounds, and was not adherent. He thought it could not have been cured by either tapping or rupture.

Concealed Intra-Partum Hæmorrhage.—The President gave the following history of a case: He was called at 7 a. m. by Dr. A. E. M.

Purdy in consultation in a case of supposed placenta prævia. The woman was thirty-nine years old, primiparous, and in the middle of the ninth month of pregnancy. She had summoned Dr. Purdy at about midnight, supposing herself to be at the beginning of labor, because of the pain from which she suffered. The pain, however, soon subsided, and the doctor returned home; but at about six o'clock he was again called, when he found considerable hæmorrhage in progress. When Dr. Lusk arrived, he was able to exclude placenta prævia, and concluded the case to be one of accidental hæmorrhage. He therefore introduced a small Barnes dilator for the purpose of exciting uterine contractions, as the best means of arresting the flow. He continued the use of the dilators until 12 M., when the cervix was considerably dilated, the pains were good, and the membranes were coming down well. He then left the case in the hands of the attending physicians for a few hours. On his return, at 3.30 P. M., it was evident that the patient had become very anæmic, and she had a weak pulse, although there had been no external hæmorrhage. He then ruptured the membranes and delivered with the forceps, nearly two hours being occupied in the operation. When the child was extracted, it was found that it had been somewhat severely injured upon the side of the neck and face by the blades of the instrument. It was then discovered that the uterus was well filled with quite firm clots, of which a large basinful was turned out, and presented the appearance of having been formed several hours previous to delivery. Under the unremitting attention of the family physicians, both mother and child made good recoveries. He thought he should pursue the same course of management in another case of like character. Although good uterine contractions might follow earlier rupture of the membranes, before the pains were established by other measures, a very great risk would be run by so doing, because, in cases of internal hæmorrhage, the uterus was, as a rule, relaxed, and atony was apt to persist after rupture. Goodell had reported 106 cases of accidental hæmorrhage, in which fifty-four mothers had died, and only seven children had been saved.

THERAPEUTICAL SOCIETY OF NEW YORK.

The ninth regular meeting of the Society was held Deccember 19, 1879, Dr. A. Jacobi, President, in the chair.

The Committee on Surgical Procedures and Appliances, through its Chairman, Dr. T. E. Satterthwaite, presented the following

Report on the Various Methods of treating Caries of the Ankle-Joint, the Result of Chronic Disease: whether by Excision, Gouging (Chiseling or Spooning), Extension, Rest, or the Expectant Plan.—It was originally intended by the propounder of these questions to draw from the experience of members of the Society and others interested in this subject facts sufficient to permit of our instituting proper comparisons between the different modes of treating carious ankle-joints, so as to gain some definite knowledge of a subject that has long given rise to diverse opinions. The Committee, in submitting this report, wish it to be regarded as preliminary, as the data do not bear upon all the points that were subjects of inquiry. In the matter of excising the ankle, they are unprepared, as yet, to make returns of any cases, because sufficient data were not easily accessible. In the matter of extension and gouging, while some material is presented, the amount of it is too small to furnish proper ground for drawing comparisons of practical value. Your Committee has, however, very full reports of seventeen cases treated by the expectant plan. They are so complete and precise, in the particular points that have occasioned most interest, that it is thought they can not fail to lead toward deductions of very great importance. It will appear from them that, so far as children are concerned at least, ordinary treatment, in accordance with simple surgical rules, and without any special operative interference, is sufficient in the vast majority of cases to accomplish a cure of the disease and leave a useful joint. This plan, which is here briefly described as the "expectant," involves treatment according to indications merely. If, for example, a joint be inflamed, entire rest is ordered; if an abscess form, it is opened; if loose bone be detected, it is simply removed, as being a foreign body interfering with the process of healing, but without special operative procedure. If in the further progress of the case a malposition of the parts be found, a support or brace is used to rectify the deformity.

By gouging, chiseling, or spooning, is meant digging out the soft, carious bone with some moderately sharp instrument, care being taken to secure all detritus so far as possible at one sitting, leaving nothing behind but sound, unyielding bone. This should be done so as to preserve the periosteum largely or entirely intact—the result being that the cavity in the bone is filled up to a great extent with newly-formed osseous matter. This plan has nothing new in it, and indeed has been practiced and strongly recommended from very early times, but it had fallen into comparative disuse until revived by Sédillot, in 1858, under the name of "évidement des os." This surgeon regarded it as "the most efficacious and least dangerous method" of operation. It can hardly be said to have secured very general favor; indeed, instances are common where the suppuration has continued, notwithstanding the operation, and for a very long period, so that in fact amputation has subsequently been necessary.

Excision of the ankle is an operation for chronic disease that, as is well known, was first practiced in France, and by the elder Moreau, in the year 1792. Following him some twenty years, Liston removed the end of the tibia, the astragalus, the cuboid, the scaphoid, and the cuneiform bones for disease; but Mr. Hancock, in 1851, appears to have been the first to perform an excision of the bones that enter purely into the ankle-joint, viz., the tibia, the fibula, and the astragalus. Notwithstanding that this surgeon performed the operation successfully four times out of five, and wrote of it, "There is afterward very little deformity—comparatively little shortening; the foot is preserved, . . . the patients are able to walk and run with perfect ease," these opinions were not shared by his countrymen. One of them, writing shortly afterward, said, "When the entire ankle-joint is involved in disease, with even a moderately diseased state of the lower end of the tibia, it is useless to attempt any other means than amputation."

Extension is a plan recommended by a well-known American surgeon* in connection with gouging and the use of a seton. He has given a number of cases, showing that an excellent result may be obtained by the method.

The actual cautery may now be regarded as virtually out of date, though it formerly obtained much favor among the older surgeons, and has still a few advocates.

Amputation is still much resorted to for chronic disease, notwithstanding the great strides that conservative surgery has made. It receives commendation from very high authority.

Dr. S. W. Gross says, speaking of bone lesions about the joint, "There can be no question that, as a general rule, it [amputation] is by far the most expedient procedure, involving hardly any risk to life, and affording an excellent stump." Some authorities, however, claim that the disease, especially in children, frequently disappears without operative measures.

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* Dr. Sayre.

The report which your Committee offers will be found to sustain this view. All the patients in the series were under fifteen years of age. The data were furnished by Drs. Gibney, Little, Reid, and Blauvelt, and the reporter. Two of them are omitted in the analysis, because suppuration never occurred at any time, and the disease underwent spontaneous resolution. Your Committee has to thank the contributors for the completeness and exactitude of their returns, which furnish a large amount of important material that is specially valuable to orthopædists and general surgeons. The full records are so extremely elaborate that they can not be given in detail, but they are preserved in the archives of the Society, and may be consulted by those interested in these matters. In the brief summary that is here offered, three only of the most important considerations are taken into account, viz.: (1) the treatment, (2) the duration of the discharge, and (3) the condition of the joint at the final examination.

Case I. (reported by Dr. Gibney.)—The treatment was expectant. The discharge lasted eight months; the final result (as observed at a very recent examination) was that the patient walked without any lameness, though, if to excess, he felt a little pain about the ankle; skating "likewise caused a little pain."

Case III. (Dr. Gibney.)—The treatment consisted in the application of poultices merely. The discharge continued several months. The result is stated as follows: Is a "stout, robust-looking girl; stands squarely on both feet, walks with perfect ease without any limp, but has a certain unsteadiness in her gait. Left ankle shows two cicatrices. No tenderness on rough handling of joint. Very fair motion."

Case IV. (Dr. Gibney.)—Treatment consisted in leeching, application of adhesive strapping, blisters, and poultices; afterward liniments and rest. How long the discharge continued was not known, but probably about five years and a half. When discharged, she was "the picture of health, standing with both feet squarely on floor, and walking without a limp."

Case V. (Dr. Gibney.)—Treatment, cold applications, irritating ointments, and adhesive strapping. The discharge continued at intervals for four years. The result of an examination six years after discharge from hospital was as follows: "Free from lameness; has been able to dance for some years past, but is unable to skate well, the joint not being perfectly mobile."

Case VI. (Dr. Gibney.)—Treatment, expectant. Duration of the discharge, one year. Examination six years after discharge from hospital: "The patient is working in a barber's shop; is on his feet a good deal, and yet has no pain. General health is good. Malleoli enlarged, but not the bones of the tarsus. Tenderness on firm pressure. Some atrophy of right calf and foot.

Case VII. (Dr. Gibney.)—Treatment, expectant. Continuance of the discharge, about six months. Result: "A cure, though patient has a slight halt in walking."

Case VIII. (Dr. Gibney.)—Treatment, expectant, the discharge lasting about one year. Result: "A very mild degree of equino-valgus, but, so far as the joint is concerned, it may be considered cured. Patient walks and runs without lameness."

Case IX. (Dr. Gibney.)—Treatment, expectant. Continuance of the discharge, about eight months. Result, a complete cure.

Case X. (Dr. Gibney.)—Treatment, abscess incised early. Expectant method then pursued, with constitutional remedies. He was examined thirty-two years after Mr. Colles's treatment ceased, and the result was shown to be complete cure. He also had Pott's disease.

Case XI. (Dr. Gibney.)—Treatment, expectant (from March 18, 1875, to September 13, 1875, the date of death). The discharge was never arrested. All the soft parts of the foot and of the lower fourth of the leg were involved, as well as all the tarsal bones.

CASE XII., *double.* (Drs. GIBNEY and PEUGNET.)—Treatment, lotions, rest, and poultices during the first two or three weeks. Abscesses formed over the dorsum of each foot; they were incised. Pieces of bone removed by Dr. Peugnet at different sittings. The discharge continued about five or six months. Result, a cure, with slight splay-foot.

CASE XIII. (Dr. GIBNEY.)—Treatment, expectant for somewhat over two years. During this time, exfoliation of bone at various periods. The discharge continued at least three years; probably longer. Result, fourteen months after the final closure of the last sinus, March 1, 1879: "Calls on a visit, and is found perfectly healthy. No lameness or loss of function in the foot. Movements at the ankle normal." No treatment pursued, except as above.

CASE XIV. (Dr. GIBNEY.)—Treatment, expectant, with constitutional remedies. Discharge for twenty months. Final closure of the last sinus, so far as known, August 3, 1877. Since then, no accounts.

CASE XV. (Dr. LITTLE.)—Treatment: when first seen, the sinus was enlarged with the finger, and the whole os calcis was removed with the dressing forceps. The surfaces of the astragalus and cuboid were roughened. Result, a cure. Dr. Little also states that he has treated three such cases successfully [details not given], and thinks that amputation is sometimes resorted to where, by conservative treatment, the foot might have been saved.

CASE XVI. (Dr. GIBNEY.)—Treatment, at first, by incision. Discharge continued a little over five years. Result: "Walks without lameness, but has a little halt when she runs. Sinus has been closed eighteen months" (December 3, 1879).

CASE XVII. (Dr. GIBNEY.)—Treatment, expectant. Discharge lasted five or six months. Result, a cure. Patient not lame.

CASE XVIII. (Dr. SATTERTHWAITE.)—Treatment, Buck's extension for two weeks, then Sayre's "ankle extension splint," which gave great comfort—in fact, entire relief from pain. Discharge continued for nearly a year. The abscess occurred during an intermission of the treatment, and followed brisk rubbing by a quack, who guaranteed to cure the child in two weeks. Final result, a cure. Arch of foot a little flattened. Can walk and skate capitally, and no one suspects that she has ever been lame. Mobility at the ankle is diminished, but is compensated for largely in the medio-tarsal joint. Duration of disease about twenty-six months.

CASE XIX. (Dr. SATTERTHWAITE.)—Treatment, rest at first, then liniments, then leeches, followed by warm fomentations, then rubbing and adhesive plaster. When caries was developed, subperiosteal chiseling and removal of dead bone, setons of oakum rope. Result: shortening about one inch, but patient walks about without a stick, and attends to daily work; general health improved. Two sinuses only were not healed. Patient died suddenly of some unknown disease about Christmas, 1878. He was sick only a few days. His case was regarded by his family as one of cure, although there was an occasional oozing, and the scabs over the two sinuses were still adherent.

CASE XX. (Dr. REID.) [Communicated by Mr. Phillips, student of medicine.]—Treatment, poultices, incisions, lotions, and bandages. Finally, an ankle-brace. Suppuration lasted for two years. Result: "Patient walks with ease, but there is an opening covered by a scab over the joint."

CASE XXI. (Drs. O'DWYER and REID.) [Mr. Phillips.]—Treatment, gouging and an oakum seton. Suppuration still existing at last accounts. Patient walks with a support.

Case XXIII. (Dr. Blauvelt.)—Treatment, tincture of iodine externally and internally, cod-liver oil with syrup of iodide of iron. Suppuration continues.

Case XXIV. (Dr. Satterthwaite.)—Treatment, removal of portion of astragalus, and seton of oakum rope, which was left *in sitû* one month. Suppuration, at last accounts, continued. Patient has improved in health, and walks without complaint.

The following general conclusions are drawn:

1. In twenty-two cases there was undoubtedly suppuration, in association with caries, or necrosis, or both, involving the bones of the tarsus or the articular extremities of the tibia and fibula, severally or combined.

2. Of the twenty-two patients, two died while under treatment, one of an unknown and sudden attack not connected with his joint trouble, and one from septicæmia originating from the very extensive bone-disease. In four cases the suppuration still persisted at last accounts, although they were all steadily improving.

3. Of the remainder, fourteen were treated on the expectant plan, and all have useful joints. The duration of suppuration varied from five or six months to five and a half years. Of the two remaining cases, one was mainly treated by extension; suppuration only ensued when the brace had been temporarily removed. The final result in this case was a useful joint in a little over two years.

In one case (No. XV.), where a portion of bone was removed, the result was a cure, though the duration of the disease was not known.

The Committee are further of the impression that caries of this joint must be studied apart from other joint troubles. In children, certainly, no matter how cachectic they may be, the expectant method will, if persevered in, in the great majority of cases accomplish a cure without subjecting the patients to the dangers of any such internal complications as tuberculosis or waxy change of the tissues.

In these cases it has been thought best to make no close distinction between the special bone or bones involved in the carious process; in fact, it is generally difficult, if not impossible, to determine this matter with accuracy. Whenever caries affects any of the bones at the ankle-joint or those of the tarsus, the general course of the symptoms is the same in most cases, and the variation is only in the extent of the lesion.

Whenever in the report a "useful joint" has been recorded, it was still found that the normal amount of motion at the point of disease had never been established, and that there was an actual atrophy of the limb by measurement, and generally some shortening of the foot. These conditions are not inconsistent with a "cure," since the disease was in most instances entirely eradicated, and the general health placed upon a substantial footing.

Your Committee add that they will shortly have many additional cases bearing on this question, and they again call upon members of the Society and others interested to assist them. Data, in reference to treatment by amputation, the actual cautery, or any systematic plan (medical or surgical), are also solicited, that they may be embodied in a subsequent report.

NEW YORK SOCIETY OF GERMAN PHYSICIANS.

A stated meeting was held February 27, 1880, Dr. A. Jacobi in the chair.

Pustular Syphilide mistaken for Small-Pox.—Dr. Caillé presented a young man, whose case was of interest because the diagnosis of an eruption had rested between variola and pustular syphilide, the subsequent course, however, leaving no doubt as to the syphilitic nature of the affection. The patient had had variola one year previously. He had subsequently contracted a chancre, which was followed, four months later, by the appearance of a roseola, which soon assumed a pustular character. Dr. Caillé had sent the patient to one of the city hospitals for anti-syphilitic treatment, where the case was diagnosticated as variola and refused admission. Several gentlemen connected with the Board of Health likewise pronounced the case variola, and the patient was in quarantine for three weeks before it was discovered that the eruption was of a syphilitic nature. At present the patient bore a squamous syphilide in process of development. Two similar cases had been recorded by Zeissl. —— Dr. Jacobi had seen variola and syphilis appear simultaneously. The patient was a young man, who was attacked by small-pox in the course of a syphilitic eruption. Toward the close of the second week of the small-pox pharyngeal diphtheria supervened, the pustules increased in size and soon developed into ugly, ill-conditioned ulcers, which never healed, the patient succumbing to blood-poisoning two months after the variola first appeared.

Addison's Disease.—Dr. Adler presented a man, twenty-nine years of age, deaf, but quite intelligent, who had enjoyed good health until last summer, when he had been ill for a month with intermittent fever, and had since then developed his present affection, Addison's disease. He had been complaining of steadily increasing weakness and of frequent chills, not attended by fever or sweating. His skin showed a well-marked brownish pigmentation, of a more concentrated tint especially on the hands and face, the neck, belly, and scrotum. Pigmented spots, almost black in color, varying in size from a barley-corn to a lentil, were also found distributed pretty equally over the whole surface of the body; they had been rapidly increasing in number and size of late; irregular but rather extensive spots of pigmentation were noticeable on the mucous membrane of the lips, the gums, and the hard palate. With the general weakness and the marked anæmia was associated, before treatment was instituted, a considerable enlargement of the spleen, which rapidly diminished in size on the administration of quinine. The heart and lungs were healthy. Examination of the blood gave negative results. There was no tuberculosis and no pigmentation of the fundus of the eye. Horner had found pigmentation of the retina in cases of pernicious anæmia; its absence in the present case would speak in favor of Addison's disease. The treatment had consisted in the administration of quinine and of arsenic, and, on the 25th of February last, in the transfusion, by Colin's apparatus, of five ounces of non-defibrinated blood, obtained from a robust youth. No reaction had ensued, excepting a short chill and moderate febrile movement about three hours and a half after the operation, and to-day the patient was feeling quite well. Dr. Adler had considered the operation indicated (1) on account of the marked anæmia, and (2) because it was still extremely doubtful if there existed any causal connection between Addison's disease and degeneration of the supra-renal capsules. The experiments of Nothnagel had yielded only negative results, and it was not unlikely that the affection in question would be regarded in the light of a disease of the blood. He had frequently, in the course of post-mortem examinations, met with advanced degrees of degeneration of the supra-renal capsules, and even with tuberculosis, which had not given rise to appreciable symptoms of the disease during the patient's lifetime. Dr. Rosenberg had methodically examined the urine, and had found a notable diminution in the amount of urea excreted (18 : 1000). Indican was present, probably in increased quantity, though a quantitative analysis could not be obtained; uric acid was entirely wanting. Uric acid and urates were contained in the first urine passed after the transfusion. Melanæmia and melanicterus were decidedly to be excluded in this case; the liver was not involved, nor did the urine contain biliary coloring-matter. ═══ Dr. Rosenberg remarked that Thudichum was the only author to mention, in two cases, complete absence of uric acid. ═══ Dr. Welch had met with the characteristic tubercular changes in the supra-renal capsules of two patients who had died of Addison's disease. He called in question the value of Nothnagel's experiments, since no tuberculosis of the organs in question had been produced. ═══ Dr. Adler had also had occasion to make post-mortem examinations in two cases of Addison's disease. In one he had found tuberculosis of the supra-renal capsules associated with general tuberculosis; in the other these organs were not at all involved, notwithstanding that the symptoms of the disease had been well marked during life. ═══ Dr. Jacobi had had occasion to remark complete absence of the urates in the urine of a very anæmic child that had recently had scarlatina. The supervention of convulsions had led to an examination of the urine, which was found to contain no albumen and also no urates, a condition he attributed to deficient assimilation of nutriment.

Median Lithotomy.—Dr. Adler exhibited three fragments of a calculus weighing about fifty-two grammes, which he had removed without difficulty from the bladder of a man twenty-six years of age, by median lithotomy and subsequent dilatation after Dolbeau's method. The stone had to be crushed, when the fragments were easily extracted. It was extremely hard, and consisted of concentric layers of uric acid deposited on a nucleus of phosphates. The operation was not followed by local reaction. A notable fact in connection with this case was the absence, before operation, of urates and phosphates in the filtered urine, while they were present in the sediment. After the operation both the sediment and the filtered urine contained these salts.

Gangrene of Lung.—Dr. Rose reported the history of a case of circumscribed pulmonary gangrene, which had undergone rapid improvement after the evacuation of an abscess that pointed near the right nipple, and after the use of Fraenkel's inhaling apparatus.

Acute Nephritis following Tonsillar Abscess.—Dr. Hesse reported the history of a case of acute nephritis following immediately upon the spontaneous evacuation of an abscess of the tonsils; it was generally supposed that nephritis appeared after extensive suppuration only. In response to an inquiry by Dr. Langmann, whether there were not grounds for the assumption of some acute infectious disease, he replied in the negative.

Optic and Ciliary Neurotomy.—Dr. Knapp discussed the definite merits of the method, recently recommended so highly and practiced so frequently, of preventing sympathetic ophthalmia by section of the optic and ciliary nerves. The operation was by no means difficult of performance, but he had always objected to it, since he considered reunion of the divided ends of the nerves just as likely to occur in such cases as after section of other nerves; the danger was therefore only temporarily removed. He had performed the operation three times during the past month—once according to the usual method, with section of the internal rectus muscle, and twice by his own method, without section of any muscle. After incising the conjunctiva between the rectus superior and the rectus internus, the closed scissors were introduced into the orbit as far as the insertion of the optic nerve. The index-finger of the left hand was then pushed forward to the nerve, and served as a guide in its division. A small, sharp hook was then used to rotate the eyeball, until the entrance of the nerve became visible, when any remaining ciliary nerve-fibers were cut, and the eyeball was replaced. No reaction followed any of the operations. The main question was, whether any lasting protection was afforded by this method.

Chronic Dysentery.—Dr. Lauer reported a case of obstinate diarrhœa, of seventeen years' standing, controlled by the use of pancreatine and by the administration of nux vomica and acetate of lead. The stools had been normal, but semi-fluid and containing fat, and numbered from ten to sixteen daily. He inquired whether disease of the small intestine or of the pancreas was to be assumed. ═══ Dr. Langmann was of opinion that the pancreatine ordinarily procurable was entirely inert, since recent investigation had proved that pancreatine was digested in the stomach; dried pancreatic tissue only had been found to exert an influence similar to that of the viscus itself. Neither diarrhœa nor fatty stools, however, were symptomatic of disease of the pancreas, according to the observations of a German confrère, himself afflicted with a tumor of the pancreas. ═══ Dr. Jacobi looked upon the case merely as one of insufficient tonicity of the anal sphincter. The fæces were evacuated in a semi-fluid state because they were not retained long enough in the rectum to acquire a more solid consistence. The benefit derived from treatment was due probably to the tonic action of the nux vomica upon the muscular fibers of the sphincter ani. In such cases he would recommend the hypodermatic injection of strychnia into the parts immediately surrounding the anus, combined with the use of the faradaic current. ═══ Dr. Adler drew attention to the fact that well-shaped fæces were evacuated in two cases observed by himself, in which incontinence existed after excision of a wedge-shaped piece of the anal and rectal wall in one case, and after amputation of the rectum in another, the anus and lower part of the bowel being entirely wanting. ═══ Dr. Jacobi thought that, as these were both seriously complicated cases, they could not be received in evidence. Inflammation or œdematous swellings had very likely existed in both these cases above the point of operation, with consecutive paresis of the intestinal wall.

Dr. A. G. Gerster, *Secretary.*

Reports on the Progress of Medicine.

QUARTERLY REPORT ON OBSTETRICS AND GYNÆCOLOGY.

No. I.

By FRANK P. FOSTER, M. D.,
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OBSTETRICS.

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2. Bradley, M. M.—A contribution to midwifery statistics. "Obs. Jour. Gr. Brit. and Ire.," Dec., 1879.

3. Poullet. — L'obstétrique et la gynécologie à l'étranger. "Lyon Méd.," Dec. 28, 1879.
4. Cohnstein.—Ueber Prædilectionszeiten der Schwangerschaft. "Arch. f. Gynäk.," xv., 2, 1879.
5. Marchand, F.—Noch einmal das Verhalten der Cervix uteri in der Schwangerschaft. "Arch. f. Gynäk.," xv., 2, 1879.
6. Krause, E., and Felsenreich. — Ueber Spannungsverhältnisse der Bauchhaut bei Gravidität. "Arch. f. Gynäk.," xv., 2, 1879.
7. Ingerslev, E.—Ueber die Menge der rothen Blutkörperchen bei Schwangeren. "Centralbl. f. Gynäk.," Dec. 20, 1879.
8. Conkey, J. S.—Case of spurious pregnancy. "N. Y. Med. Jour.," Dec., 1879.
9. Hickman, J. W.—Vomiting of pregnancy, etc. "Med. and Surg. Reporter," Dec. 13, 1879.
10. Ellingwood, F.—Vomiting of pregnancy. "Chicago Med. Times," Feb., 1880.
11. Potter, W. W.—On rectal alimentation and the induction of abortion for the relief of the obstinate vomiting of pregnancy. "Am. Jour. Obstet.," Jan., 1880.
12. Möricke, R.—Beitrag zur Nierenerkrankung der Schwangern. "Ztschr. f. Geburtsh. u. Gynäk.," V., 1, 1880.
13. Partridge, E. L.—Two cases of pudendal hæmatocele without interruption of existing pregnancy; treatment by incision. "N. Y. Med. Jour.," Jan., 1880.
14. Hughes, J. B.—Viburnum prunifolium in abortion and miscarriage. "N. Carolina Med. Jour.," Dec., 1879.
15. Macdonald, A.—On the treatment of abortion. "Edinb. Med. Jour.," Feb., 1880.
16. Hofmeier, M.—Zur operativen Behandlung der Extrauterinschwangerschaft. "Ztschr. f. Geburtsh. u. Gynäk.," V., 1, 1880.
17. Bailly.—Observation d'un enfant né viable après 6 mois et 20 jours au plus de vie intra-utérine, et d'un nouveau cas de grossesse prolongée. "Arch. de Tocologie," Dec., 1879.
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20. Atchison, W. A.—Concealed ante-partum hæmorrhage. "Nashville Jour. Med. and Surg.," Jan., 1880.
21. Champneys, F. H.—Notes on "uterine polarity." "Obs. Jour. Gr. Brit. and Ire.," Jan., 1880.
22. Croom, J. H.—The causation of some primitive face cases. "Edinb. Med. Jour.," Feb., 1880.
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28. Lusk, W. T.—The prognosis of Cæsarean operations. "Am. Jour. Obstet.," Jan., 1880.
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32. Nunn, R. J.—Placenta prævia; outlines of its present management and of a new treatment, with an illustrative case. "Am. Jour. Obstet.," Jan., 1880.
33. Young, D.—Cases illustrative of careless management of the third stage of labor, with some remarks on the management of that stage. "Obs. Jour. Gr. Brit. and Ire.," Dec., 1879.
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36. Balin, J.—Ueber das Verhalten der Blutgefässe im Uterus nach stattgehabter Geburt. "Arch. f. Gynäk.," xv., 2, 1879.
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39. Browne, B. B.—On the use of jaborandi and pilocarpin in eclampsia. "Maryland Med. J.," Dec., 1879.
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46. Brun, F.—De la phlébite et de la lymphangite utérines. "Revue Mens. de Méd. et de Chirurg.," Dec. 10, 1879.
47. Thiede, M.—Ueber lokale Antiphlogose im Wochenbett. "Ztschr. f. Geburtsh. u. Gynäk.," V., 1, 1880.
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50. Horner, F., Jr.—Puerperal fever with peri-uterine cellulitis. "Med. and Surg. Reporter," Feb. 7, 1880.
51. Coburn, G. H.—Case of puerperal septicæmia causing symptoms of cerebro-spinal meningitis. "Phila. Med. Times," Jan. 31, 1880.
52. Parish, W. H.—Puerperal septicæmia, chiefly as observed at the Philadelphia Hospital. "Phila. Med. Times," Feb. 14, 1880.

9. Dr. Hickman urges that oxalate of cerium, to prove efficient in the *vomiting of pregnancy*, should be given far more freely than is usually done—ten grains as often as necessary, taking care to give the first dose half an hour before the patient rises from bed. He has not seen good results from combining it with subnitrate of bismuth. Bismuth is best given in combination with carbolic acid, according to a formula given in Bartholow's "Materia Medica and Therapeutics" (℞. Bismuth. subnitrat. ʒ iij, acid. carbolic. gr. ij–iv, mucilag. acaciæ f℥ j, aq. menth. pip. f℥ iij. M. Cap. f℥ ss ter vel quater in die.). Arsenic is especially indicated when the vomiting is followed by painful retching, and when the ejected matter is streaked with blood, or blood alone is cast up. When the vomited matter is alkaline, nitro-muriatic acid will generally be found fairly trustworthy. Ingluvin, however, he thinks "stands first among the agents reviewed." When all medication fails, the induction of premature labor is indicated. [We should protest against this radical expedient, unless after failure to give relief by Copeman's method—dilatation of the cervical canal.]

10. Dr. Ellingwood gives a case of *vomiting of pregnancy*, in which, after about six weeks of active medicinal treatment without any permanent effect, Copeman's method was used with success, although the vomiting did not stop until two days after the dilatation had been practiced.

15. In his article on *abortion* Dr. Macdonald refers to early abortions only, mainly those at about the end of the third month. In threatened abortion he has never felt warranted in using ergot for its hæmostatic effect, for such action would be more than counterbalanced by the induction of uterine contraction. Search should be made for "hydatids," as myxoma of the chorion is a frequent cause of abortion, and in such cases no attempt should be made to secure retention of the ovum. Considerable hæmorrhage, provided its source be near the lower pole of the ovum, does not necessarily preclude the continuance of gestation. He then cites a case in which the bleeding was so severe that a sponge-tent was introduced into the cervix. The cavity of the cervix was freely dilated, and the bleeding was stopped, but the pregnancy continued to term. The patient had suffered from severe morning-sickness, which was not relieved by the dilatation—"a crucial experiment regarding the value of Copeman's proposed dilatation of the cervix for morning-sickness of pregnancy" [simply an instance of its failure, we should say—such as occasionally happens with not a few other therapeutic measures]. When abortion seems unavoidable, if the bleeding is moderate, and if the contractions are tolerably powerful, specially active treatment is not required—the free use of ergot, recumbency, and the like being all that is called for, with perhaps acceleration of the final stage by gentle traction upon the presenting point of the ovum after it is well into or through the os uteri, combined with pressure upon the fundus. He decidedly objects to plugging the vagina as a routine practice, and especially to faulty methods of plugging. The tampon is occasionally demanded, however, and in such cases "every corner and cranny of the vagina" should be packed firmly with pledgets of cotton-wool or lint soaked in a solution of the bisulphate of iron, or in a two per cent. solution of carbolic acid. The tampon should not be left in place for more than from twelve to twenty-four hours. If the cavity of the cervix will allow the index-finger to traverse it, it is usually possible, by chloroforming the patient and introducing one hand into the vagina, while the uterus is depressed with the other, to explore every portion of the inner surface of the uterus, to make out whether the ovum is entirely or partially separated from it, and to break up any adhesions that may exist. Then a very moderate pressure upon the fundus will extrude the ovum sufficiently to allow of its lower pole being gently grasped between the index and middle fingers and removed. He does not advise the use of forceps. If the cervix will not admit the finger, and the bleeding is serious, there is no objection to plugging the cervix, preferably with a sponge-tent. The latter expands rapidly, and the cervix will be found fully dilated in three or four hours at most, so that septic changes are not likely to be set up. The case is now to be treated as above described. Manual depression of the uterus so as to bring the os externum to the vulva should not be practiced unless actually necessary. If adhesions exist, such depression is "not only dangerous but impossible." A copper curette may be used where the great bulk of the ovum has been expelled, but the cervix will not admit the finger. After this the uterus should be washed out with a two per cent. solution of carbolic acid. The onset of fever or any evidence of absorption of putrid matter warrants the emptying of the uterus at almost any cost, let the bleeding be ever so slight. After the uterus is emptied, the patient should keep her bed for a week at least, and active duties should be suspended for another week, otherwise, sub-involution, chronic metritis with catarrh of the cervix or body or both, perimetritis, parametritis, oöphoritis, displacements, etc., are extremely apt to follow. It is in cases of severe hæmorrhage after complete evacuation of the uterus that plugging is of the greatest value, but, to be efficient, it must be thorough. Persistent menorrhagia, following an "ill-cured" abortion, may be due to placental polypi or to a granular condition of the endometrium. Polypi are to be broken off with the finger, or scraped off with a blunt copper curette, and the uterus should be washed out with a solution of carbolic acid. Then possibly, with rest and ergot, all will go well. The internal use of solution of pernitrate of iron is doubly beneficial—as a tonic and as an hæmostatic. If tightly closed, the cervix should be dilated with tents of laminaria or sponge, and the curette should be used. Even where the latter brings nothing away, the result is good, and the mere dilatation is of itself curative, probably by stimulating uterine contraction. The author doubts if it is safe or frequently practicable to use the curette without previous dilatation. The curette should always be employed with great caution. Strong ground is taken in the article against the non-interference plan of treatment.

16. Hofmeier gives a short account of three cases of *extra-uterine pregnancy* in which laparotomy was performed by Schröder. In commenting upon the operation in general, the author refers especially to two points: the removal of the placenta and the fœtal sac, and drainage through Douglas's pouch. All are agreed that the placenta should not be removed when the child is living, but the case seems somewhat different after the death of the child. If it has been dead for several weeks, an attempt may be made to remove the placenta, as the coagulation of blood in its vessels will probably have already proceeded so far that little or no hæmorrhage will take place. Thus the great advantage is gained of getting rid at once of the chief focus of putrefaction. As to drainage, it is quite sure that if the placenta is inserted in Douglas's space, the establishment of a drainage channel in that situation would be dangerous; perhaps not to so great a degree if the fœtus has been dead for several weeks. Gusserow, in a case where the fœtus had been dead five weeks, found himself obliged to establish drainage on the third day, but without much benefit. Primary drainage is calculated to prevent excessive putrefaction and to give the freest possible escape to the putrid secretions. Apart from the quite exceptional occurrence of the placenta being implanted in Douglas's space, and from the sac being developed far away from that locality, such drainage is easily carried out, and generally without involving the peritonæum at large. Even should a limited extent of peritonæum be involved, the drainage-tube would probably become so encapsulated within the first few days that secondary infection would be guarded against.

18. Storch's *post-mortem Cæsarean section* was done upon the body of a primipara, thirty years old, who was supposed to have somewhat exceeded the normal term of pregnancy. She was laboring under albuminuria, and the author thought he recognized a faint systolic aortic murmur, which was thought to be of no moment. There was evident hydramnios, and the excessive distention of the abdomen was thought sufficient to account for the moderate dyspnœa from which the patient suffered. She had also a slight cough. The pulse was quiet and regular. In a few minutes after having made the examination which revealed these facts, the author was hastily recalled to the patient from an adjoining room, and found that she had jumped out of bed in a fit of coughing, with great dyspnœa, and was then sitting in a chair, in a state of extreme cyanosis. A vein was opened at once, but only a few drops of blood flowed. In the course of a few seconds a large quantity of fine bloody froth issued from the mouth and nose, the face became livid, the pulse and respiration stopped, and the patient was dead. Eight to ten minutes later, the Cæsarean operation was performed, its execution occupying about half a minute. The child was extracted by the feet. It was pale and limp, but weak and slow pulsations were felt in the funis—about 70 to the minute. The cord was cut at once, and the child was placed in a warm bath. Insufflation of air into the trachea was begun immediately through a child's silver catheter, as no other available instrument was at hand. After a few rhythmical insufflations the pulsation of the cord became more frequent and stronger. After some minutes the catheter was removed, and artificial respiration by Schultze's method was tried; but the pulsation soon grew slow and weak, compelling resort to insufflation again. It was not until after a good half-hour that the child made its first weak inspiration. Schultze's and other methods of artificial respiration were now made use of, and, after an hour and a quarter in all, the child cried feebly, the breathing was regular and full, and its skin was moderately red. The child was then wrapped in warm cloths, and a repetition of the warm bath after a few hours was ordered. The child was a mature, well-developed boy, weighing four kilogrammes. He subsequently did well. From the great suddenness with which the death of the mother occurred; from the fact that she had not been weakened by a long illness; from the trifling length of time taken up in establishing a positive diagnosis of death, and in preparing for and performing the operation; from the perfect development of the child; from the promptness and perseverance with which artificial respiration was practiced—in short, from the peculiar combination of all favorable circumstances, and yet the extreme difficulty with which success was achieved—the author feels very skeptical in regard to recorded cases of success after the lapse of an hour or more between the mother's death and the delivery of the child.

22. Dr. Croom gives the details of an interesting case of *primitive face presentation*, i. e., a presentation of the face not brought about during the process of labor. Far from this, labor changed the presentation into one of the vertex, in the right occipito-posterior position. Excluding all other causes, and reasoning also from persistence of extension of the head long after birth, Croom attributes the presentation of the face in this instance to tonic contraction of the muscles of the back of the neck, with an atonic condition of the depressor muscles of the chin; and concludes [upon slender data, we think] that some such abnormality is probably the cause of most primary face presentations.

29. Dr. Gillette's successful case of *laparo-elytrotomy* has already been given in abstract in this "Journal" [see the January number, p. 71].

32. Dr. Nunn's new method of treating *placenta prævia* consists in "gentle intra-uterine instillations of hæmostatics." In accidental hæmorrhages and in those preceding abortion, he prefers the fluid extract of matico, conceiving it to be less irritating in its after-effects. He has used this method of treatment in several cases of partial placenta prævia, and in this article he gives a case of complete placenta prævia, in which the application of liquor ferri persulphatis to the bleeding surface, by means of a cotton swab passed through the os with the aid of a speculum, arrested the hæmorrhage instantly and absolutely. As labor progressed, two more applications were required. After the first one only, a pledget of cotton saturated with the styptic was left in the cervix. The author insists upon the differences between this method and the use of vaginal styptic applications.

34. In the case of *death from intra-uterine injection of perchloride of iron* reported by Dr. Herman and Mr. Brown, the uterus did not contract properly after the expulsion of the placenta. A solution of the perchloride (of the strength of one to six, as nearly as could be guessed) was injected into the uterus with a Higginson syringe, to which a long uterine tube was attached. The patient was very anæmic, but, judged from the pulse and aspect, in no immediate danger of death. After the first syringeful or two had been injected the patient seemed a little uneasy, but said, in answer to a question, that the injection did not give her much pain, and the injection was continued. After a few more syringefuls she gave a faint cry, threw up her arms, turned pale, gasped for breath; a few sighing inspirations followed, and then she was dead. An autopsy was not allowed. The authors think it probable that death happened from a thrombus becoming detached from a uterine vein, and being carried up to the heart. They infer that it is not perfectly safe to inject a large quantity of solution of perchloride of iron into the recently delivered uterus [an inference already drawn by, we think, most of those who have carefully weighed recorded experience upon the matter].

42. Dr. Budin gives the results of experiments in the use of *elastic ligatures upon the funis.* Where the gelatinous substance of the cord is abundant, an ordinary ligature does not always prevent the occurrence of secondary hæmorrhage. However tightly tied, the shrinking of the cord is apt to loosen it so that a probe can easily be passed between the cord and the ligature. This was found not to be the case with the elastic ligature. The resisting power of an ordinary ligature is proportionate to the number of turns made rather than to the tightness of the knot. The elastic ligature is to be preferred for large cords. It does not cut through the cord, as might be feared. From the nature of the material, however, its application is awkward. To do away with this objection, Tarnier has devised the match method [*le procédé de l'allumette*]: a match is laid upon each side of the cord, and the elastic ligature is tied around both cord and matches. The matches are then broken and removed.

43. Behm reviews minutely the various well-known methods of artificial respiration as applied to *asphyxia neonatorum.* As the article does not admit of adequate condensation within our present limits, we can give only the author's conclusions: (1) Schüller's method is not to be recommended, as its efficiency is but slight. Faradization of the phrenic and Woillez's method are impracticable, on account of inconveniences pertaining to the apparatus. (2) Marshall Hall's and Howard's methods cause only expiration, and are hence particularly fitted to aid in the removal of foreign bodies—especially Hall's, as the posture favors the outflow of fluids from the mouth and nose. (3) Silvester's, Pacini's, and Bain's methods show the greatest differences between inspiratory and expiratory force and the most striking variations of positive and negative pressure. They best supply air to the lungs and stimulate the heart's action. (4) Schultze's method fulfills at the same time all the three indications of artificial respiration, but in the separate features is inferior to those before mentioned. Its great drawback is that the child is very much chilled, and so it is less fitted to rouse the sinking circulation. (5) Catheterization with the elastic catheter and the double syringe likewise answers all three of the indications at the same time, and more surely than all other methods, especially the removal of foreign bodies.

45. Dr. Nairne announces that he has never failed to find a *tender spot upon the uterus after delivery* within twenty-four hours, if not at once. It is usually situated on the right or left side of the organ, between its middle and upper thirds, but may lie elsewhere. He thinks that it marks the site of the placental insertion.

46. Dr. Brun, in his article on *uterine phlebitis and lymphangitis*, gives a lengthy review of some of the vexed questions connected with the pathology of puerperal fever, and closes with a short account of the clinical history of puerperal phlebitis and lymphangitis. Uterine lymphangitis generally makes its appearance shortly after delivery, by a single chill, moderate in severity, and not always present. At the same time, sometimes before the chill, there is found to be pain, limited to the entire border of the uterus, easily provoked by seizing the fundus with the thumb and middle finger and sliding these two digits slowly downward. The chill is always followed by a continuous febrile state. The pulse rises constantly, from first to last. Full, hard, and moderately accelerated at the outset, it soon becomes small, soft, weak, and excessively frequent. The temperature, elevated from the first, ranges between 40° and 41° C. [104° and 105·8° F.]. At first the countenance is animated, the eye brilliant, the cheeks red; then, at a given moment, the face becomes shriveled, and the eyes sunken. The expression becomes dull upon the supervention of very marked tympanites, with vomiting and peritonitic pains. The symptoms of angioleucitis now disappear or are masked by those of peritonitis, which latter produces death at the end of seven or eight days.

Uterine phlebitis appears from the fifth to the twelfth day after delivery, and sometimes even later. The first symptom is a prolonged and very severe chill. This chill is followed by a state of complete apyrexia, but is soon renewed. Pain, when it exists, is but slightly pronounced, and is situated deep, at the level of the uterine cornua, which may be easily felt, as the abdomen preserves its suppleness. The pulse, generally strong, full, and dicrotic, shows an extremely variable course. The temperature, normal at certain hours of the day, shows a very marked rise during the accession of fever. Alteration of the features, a sub-icteric tint of the skin, restlessness, and delirium complete the picture, which, it will be seen, is singularly like that of purulent infection. Recovery from phlebitis is rare. It is announced by a cessation of the chills and by the appearance of critical collections of pus. In the reported cases of recovery from lymphangitis, the disease has been of a partial character, such as the partial lymphangitis of Lucas-Championnière and the peri-uterine adeno-lymphitis and lymphadenitis of Guérin and Auger.

47. Dr. Thiede, in his article on *local antiphlogosis*, mentions the objections attaching to the frequent introduction of a tube into the uterus, and describes how he avoids them by the permanent retention of a catheter, through which injections are thrown up at short intervals, or continuous irrigation is maintained. As disinfectants, he uses carbolic acid, hyposulphite of sodium, and acetate of aluminium. Continuous irrigation with a two to three per cent. solution of carbolic acid has not produced toxic symptoms in his experience. The novelty of the article lies in his practice of continuous irrigation with ice-water, a practice that has produced some striking results in his hands.

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4. In regard to the question of the necessity of *dilating the uterine canal* in gynæcological practice, Schröder states that in private practice he has not introduced a tent for the past year and a half. The dangerous effects of tents may be obviated by careful precautions, but those precautions involve a good deal of trouble. Dilatation is seldom necessary. Where it is desirable to insert the finger into the uterine canal, he does not hesitate to divide the cervix bilaterally up to the vaginal junction. Any resistance that the os internum may offer to the progress of the finger is overcome by external pressure or by pulling upon the cervix with a Muzeux forceps. The lips of the cervix are brought together with sutures as soon as the operation is finished.

9. The following are Dr. Maury's conclusions as to the *treatment of* *pelvic effusions:* 1. Caution and judgment are eminently demanded in the treatment of pelvic effusions; in the management of pelvic abscesses, we should wait until maturation is complete, and simply assist Nature by making an incision as early as we are satisfied she has clearly indicated the point of opening. This is demanded in order to lessen the risk of a rupture into the peritonæum or bowel. 2. Inasmuch as many pelvic abscesses do not point at all, and manifest no tendency to open of their own accord, surgical means must be employed to make a way for their evacuation. 3. Generally these abscesses can be reached through the vagina, and whenever the effusion presents at the vaginal roof, so that it may be felt as a resisting body (it is not necessary that it should come down into the pelvis), it may be evacuated by the trocar. In rare cases these tumors present only in the rectum, or through the abdominal wall, and can not be reached through the vagina. 4. Whenever we are satisfied of the existence of pus, and that ripening of the abscess has occurred, and thinning of the wall can be discovered, let us open it at once. 5. When we can not, by physical signs alone, prove the presence of pus, as is often the case, but believe it to be present from the constitutional symptoms, we should not hesitate to explore the pelvic roof or rectal or abdominal wall by aspiration, and remove the effusion without delay, wherever found. 6. The great majority of serous effusions will disappear under the influence of rest and counter-irritation. The very few which continue, in spite of medical measures, should be treated like similar effusions into the pleura. 7. Should such an effusion remain unabsorbed for three or four weeks after the beginning of the attack, and all acute symptoms have subsided, and especially if pain and a feverish condition be present, we should not hesitate to aspirate with a delicate trocar, and remove the effusion. 8. We are often unable to tell from the patient's history how long the effusion has been present, especially if the case has been subacute or chronic from the beginning; but we may always with propriety aspirate, if the condition is not one of acute inflammation, and if we are satisfied of the inutility of remedies.

10. The article referred to is the conclusion of a clinical lecture by Dr. Martineau on *peri-uterine hæmatocele.* As regards treatment, he recommends the measures usually employed by French physicians, and adds that surgical treatment is applicable only in very exceptional cases. As a rule, puncturing is bad practice; it does not stop hæmorrhage, but may cause its renewal, and it tends to provoke suppuration. Even when suppuration has taken place, it is generally better to let the purulent collection take its own course, unless it threatens to open into the peritonæum, or unless there are signs of the absorption of putrid matter. Even under these circumstances, no large openings should be made, but simple punctures.

11. In the case of *membranous dysmenorrhœa and metrorrhagia* related by Dr. Rothe, the metrorrhagia seems to have been the prominent symptom. It resisted various sorts of internal medication, dilatation of the cervical canal followed by the use of Thomas's curette, intra-uterine applications of various styptics, etc. It finally yielded to galvanism. A zinc-carbon battery was used. The negative electrode was introduced into the uterine cavity, up to the fundus, and the positive was applied by turns to the hypogastrium and over the sacrum. Twenty cells were used at first, but so much pain was produced that a reduction to fifteen, and then to ten, was found necessary. The hæmorrhage stopped in three minutes. Two or three subsequent applications of galvanism resulted in a permanent cure.

19. In his article on *danger in the use of vaginal injections*, Dr. Simmons gives cases occurring in his own practice or recorded by others, in which ordinary vaginal injections produced the severe pain, shock, etc., which are now well recognized as occasionally resulting from this common therapeutic measure. Among the cases referred to is one originally published by the present writer, which we had diagnosticated as hysteria simulating pulmonary embolism. Dr. Simmons regards the symptoms as having been due to the penetration of the injected water into the uterus. In thus disagreeing with our diagnosis, he expresses himself with the utmost courteousness, which, while adhering to our diagnosis, we desire to acknowledge in the same spirit. Dr. Simmons regards the small size of the end of the nozzle usually employed as the cause of the trouble, as it is thus rendered liable to be introduced directly into the uterus, in cases of retroversion especially. To obviate this danger, he recommends that the end of the nozzle should be made large. This is a good recommendation, so far as it goes, but we fear that it does not cover the whole ground, as we have tried to show in an article published in the "Hospital Gazette" for October 15, 1877. It is proper to add, however, that Dr. Simmons does not profess to consider the whole subject of the dangers of vaginal injections.

20. Dr. Atthill is well known as an advocate of the frequent use of *intra-uterine medication*, meaning thereby medication of the cavity of the body of the uterus. On this broad ground, he seems to be at variance with the general drift of the opinions held by the foremost gynæcologists of the present time. The following are the only agents that he uses: carbolic acid, tincture of iodine, iodized phenol [Battey's combination of iodine and carbolic acid], nitric acid, solid nitrate of silver, zinc points, and crayons of iodoform. He regards carbolic acid as the safest and generally the most efficient of them all. It should be applied twice on each occasion of its use, as much of it is neutralized in the cervical canal on the first application. He uses a mixture of two parts of the acid to one of spirit or glycerine. It will generally be found necessary to apply it every three or four days for some weeks. He thinks iodine less satisfactory, but speaks of iodized phenol, diluted, as a very satisfactory application, especially in endometritis occurring in old women, in whom a fœtid discharge is frequently present. In recent cases it is less efficient than nitric acid. The latter he thinks perfectly safe if care is taken to protect the cervical canal by means of a cannula, and to keep the patient in bed for a day or two after the application. Both nitrate of silver and zinc points sometimes cause considerable pain, and are more likely to cause cellulitis than are the other agents. They are most useful in cases where there is menorrhagia, with a patulous state of the os and cervical canal, but without much enlargement of the uterus—where the hæmorrhage seems due rather to a vascular condition of the endometrium than to a thickened and granular condition of its surface. They should not be used if copious uterine catarrh be present. He has been disappointed with iodoform. Although it sometimes allays pain, it has little if any effect as a caustic—none at all, we should say. Our decided impression is, that the profession needs to be cautioned against the too frequent use of one and all of these measures.

25. As regards *mechanical dilatation of the uterus*, Fritsch alludes to recent discussions as to whether compressed sponge, laminaria, or tupelo is the best material for dilating the uterine canal, and declares that all three should be discarded when mere dilatation is to be effected to facilitate access to the uterine cavity, for sepsis is very apt to be the result. He prefers rapid dilatation with steel sounds, which are forcibly introduced, one after another, until the necessary dilatation is secured. This is done under anæsthesia, and care is taken to make counter-pressure externally upon the fundus. Expanding tents are to be preferred only when it is desired to exert an effect upon the tissue, the vascularity, or the contractile energy of the organ.

41. Mr. Tait, in a short article on the *diagnosis of ovarian tumors from the characters of the fluids contained in them*, announces the failure of the presence or absence of the band of lutein to aid in the diagnosis, since it has been found that serous fluids yield the spectrum of this body. In his experience, too, the fluid from parovarian cysts is not always or generally limpid, as commonly stated. In the majority of his cases it has been thick, even to viscidity, and in such fluids he has seen all the microscopic appearances said by some writers to be characteristic of ovarian tumors.

43. Ahlfeld's *ten laparotomies* included three for ovarian disease, three for large cysts of the broad ligament, one for hydronephrosis, two for the removal of the entire uterus by Freund's method, and one exploratory incision in a case of cancer of the ovaries and the omentum. All of them were done under Lister's spray. The author thinks that any operator having a fœtid breath should thoroughly purify his mouth and nose, and perhaps also his stomach, before operating. How the stomach is to be purified we are not told. It would seem that Listerism could scarcely be carried further. One of the cases of ovariotomy was notable in several respects: A small tumor of the left ovary was removed at once on opening the abdomen. The right ovary presented a large tumor, which could not be lifted out of the pelvis. In the endeavor to do so, it was ruptured and proved to be a dermoid cyst, and the contents (a smeary, fatty mass, mingled with a good deal of hair, plates of bone, etc.) flowed into the peritoneal cavity. This substance was so sticky that soap was found necessary to remove it from the tissues and from the operator's hands. It was found impossible to cleanse the peritonæum thoroughly, and severe peritonitis ensued and speedily proved fatal. The author suggests that tumors of this fragile sort may, when incarcerated in the pelvis, be pushed up out of that cavity by slowly distending the vagina with a colpeurynter. Of the two patients upon whom extirpation of the uterus was performed, one recovered and the other died. In the latter case, the urine was found to contain blood soon after the operation, and the author felt sure that the bladder had been injured. He comments at considerable length upon Freund's operation in general, and gives a table of sixty-eight cases. Fortunately for the operation, the first few cases did well. This, together with the advance of Listerism, emboldened many surgeons to attempt it. The author thinks it unwarrantable to teach, as has been done by Freund and Schröder, that the liability of the disease to return is no more of an argument against this operation than against the removal of cancers from other parts of the body. The cases are not parallel. The removal of a cancerous testicle, breast, etc., scarcely involves any danger to life, and is wholly an advantage, although perhaps but temporary, to the patient. The same can not be said of an operation involving such great danger to life as does extirpation of the uterus. He therefore thinks that no surgeon is justified in subjecting a woman to such risk unless there is a reasonable expectation of radical cure. As regards the technics of the operation, he thinks it a matter of congratulation that operators have more or less disregarded Freund's injunction that in no detail even should the procedure ever vary from the precise method first laid down by him. Even Freund himself has modified his original operation in some respects. Of the sixty-eight cases collected by Ahlfeld, forty-nine proved fatal, and in two the result is unknown. The disease returned in six. The operation is necessarily a very difficult and dangerous one. In this fact alone, rather than in an improper selection of cases or in injudicious modifications of the technics, lies the reason of its great fatality. Possibly further improvements in the treatment of the peritonæum and in the ligation of the broad ligaments may reduce the danger.

QUARTERLY REPORT ON OPHTHALMOLOGY AND OTOLOGY.

No. I.

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Ophthalmology.

1. Wolfe, G. R.—How to obviate the risks of failure in operations for cataract. "Lancet," Dec. 6, 1879.
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5. Talko.—Ein Fall von angeborener seröser Cyste unter dem unteren Augenlide bei Mikrophthalmus. "Medycyna," No. 27; "Centralbl. f. Chir.," Dec. 6, 1879.
6. Kessler.—Hallucinations probably due to opacities in the vitreous humor. "Allg. Zeitsch. f. Psychiatrie," Bd. 36, Heft 4; "Lond. Med. Record," Dec. 15, 1879.
7. Swanzy, H. R.—On sclerotomy in glaucoma. "Med. Press and Circular," Dec. 10, 1879.
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22. Harlan, G. C.—Extirpation of the eye in panophthalmitis. "Trans. Amer. Ophth. Soc.," 1879.
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1. Wolfe gives a short sketch of Daviel's and Graefe's operations, the objections raised against them, and the dangerous consequences which may arise from the two methods of operating. He then considers briefly the risks attending an operation for cataract, as regards the cornea, iris, vitreous, and lens. He speaks strongly of the great vitality of the cornea, and is convinced that, with fair treatment, there is little to be feared for the cornea in an operation for cataract. He advocates the removal of infantile cataract, rather than trust to its being absorbed. He then describes his own operation for senile cataract, prefacing the extraction by an iridectomy downward from two to three weeks before. The section of the iris is made subconjunctivally with a lance-knife. The corneal section is made near the margin and downward, and the narrow knife is withdrawn

when the corneal section is nearly completed. The speculum is then removed, the lids held apart by the thumb and finger, and the capsule opened by the cystotome, though in what manner the author does not state. The corneal bridge is then divided by a small, blunt-pointed knife with convex edge. Then, by careful pressure and counter-pressure through the lids, the lens is extruded. Wolfe claims the following advantages for this method: 1st. The iridectomy is merely a slight preparation for the extraction. 2d. The iris, being laid hold of by its pupillary margin, is rounded by the scissors so as to leave the ciliary border untouched, and is thus prevented from being caught in the wound. 3d. The same acuity of vision is secured as when the pupil is intact. 4th. The process of extraction is not obscured by the bleeding from a freshly cut iris.

2. The patient was a boy, æt. sixteen, and lived twenty minutes after swallowing the poison. The pupils were large and non-sensitive to light. The usually red glow from the choroid was entirely absent, and its place occupied by a very pale violet-gray tint. The optic disk was of a dull grayish-white tint and ill defined. The retinal arteries were reduced to exceedingly narrow threads. The veins were unevenly and imperfectly filled with blood. The observation was obstructed by a peculiar broken-up-like condition of the media, but whether of the cornea, lens, or vitreous, was not determined.

3. In hemiplegia the direction of the head and eyes is always away from the paralyzed side. The cases in which it is most marked are those in which the hemiplegia comes on suddenly, and sometimes this lateral deviation enables us to diagnosticate a cerebral attack. It is not a localizing symptom, and it does not persist, but passes off in from four days to a week. Generally the rotation of the head improves first. Its disappearance is not a part of the general recovery, for the head and eyes resume their natural position when the hemiplegia persists. The symptom is usually associated with cerebral hæmorrhage, but is not pathognomonic of it. It also occurs with embolism. It tells nothing with respect to the seat of the lesion, except that it will be found on the side of the brain toward which the eyes and face are turned. This symptom arises from the bilateral association of nerve-nuclei; but, both in the rotation of the head and in the lateral movements of the eyes, the association between the nerve-nuclei concerned is not simply transverse, but oblique. The nucleus of the external rectus is so blended with the facial nucleus that the two are almost confounded. The nucleus of the motor oculi is at the top of the pons. The external rectus of one eye acts always with the internal rectus of the other, and the fibers which connect the nucleus of the sixth nerve of one side with the nucleus of the third of the other have a considerable length to run. The same thing holds true in regard to the movements of the head and neck, a corresponding relation holding between the spinal accessory and first cervical nerves which supply the sterno-mastoid and inferior oblique muscles of the spine. This explanation of this group of symptoms is confirmed by experiments on animals. In the "mouvement de manège" produced in dogs by injury of the corpus striatum or hemispheres, and which corresponds to hemiplegia in man, there is always associated with it this conjugate deviation of the head and eyes. As before stated, this symptom is almost always transient; but when a lesion exists in the pons which cuts off the communication between the nucleus of one third nerve and the nucleus of the opposite sixth nerve, the conjugate deviation of eyes and head becomes permanent, because the reversing of the current is thus rendered impossible.

4. The tumor was removed from an infant three months old, and implicated the anterior lobe of the brain and optic nerve. At birth the right eye was slightly protruded and the upper lid congested. Death took place without any special cerebral symptoms. The right anterior cerebral lobe was found involved in a mass of new growth, which had invaded the orbit, causing absorption of its roof, and had protruded over the face. The eye was not invaded by the growth. The tumor presented a reticulated stroma inclosing epithelioid cells, and was regarded as an alveolar sarcoma.

5. The patient was a boy nine months old. The upper eyelid was drawn into the conjunctival sac entirely, so that its ciliary margin was invisible. The lower lid was pushed forward by a fluctuating, elastic, bluish cyst, as large as a plum, and completely everted. In the conjunctival sac could be felt the rudimentary eyeball, about as large as a pea. The cyst and rudimentary globe were removed and examined. Talko regards these cysts as retention tumors, and thinks they are formed by the union of the upper half of the lachrymal sac with the lachrymal groove.

6. The case cited by Kessler was that of a man who believed it was his mission to swallow souls, and thus deliver them from purgatory. He described the souls as rotating balls or disks. Those nearest him were the largest, moved slowly, and had a bluish color; others were smaller, brighter, rotated more rapidly, and were yellowish-red in color. Ophthalmoscopic examination revealed peculiar little faintly shining bodies in the eye at varying distances from the fundus. Their shape suggested cholesterin crystals, and they were apparently in constant motion. After prolonged administration of iodide of potassium they became very transparent, and the hallucinations diminished.

10. This memoir treats of the pathetic nerve. In brains of human embryos of the seventh month, as well as in lambs' brains, Duval clearly distinguished the decussation of the two pathetic nerves; but he does not add anything to our knowledge of their origin.

11. In this treatise is considered paralysis of the abducens by a lesion in the nucleus of origin, a paralysis always accompanied by conjugate deviation of the healthy eye. A pathological state of a certain very limited region in the floor of the fourth ventricle causes paralysis of the external rectus of one eye, with conjugate inaction of the internal rectus of the other eye. Inversely, Graux thinks that the presence of conjugate deviation of the eyes of paralytic variety enables us to affirm positively the existence of a lesion of the nucleus of origin of the sixth nerve. Graux next formulates the following hypothesis: the sixth nerve of one side innervates the internal rectus of the other eye, and not the third nerve. But this hypothesis is flatly contradicted by physiology. Féréol then makes this second hypothesis: The internal rectus has a double source of innervation; when it acts with the external rectus of the other eye, it draws its stimulus from the sixth nerve; when it acts independently, its stimulus comes from the third nerve. Anatomical and physiological researches do not, as yet, satisfactorily confirm either of these hypotheses.

12. Three cases are cited. The first followed an operation for advancement of the external rectus muscle, and required its entire removal for a cure. The cyst had a wall of connective tissue which was lined by a single layer of squamous epithelial cells. The second case resulted from a blow with an iron rod, which ruptured the eyelid, and the cyst was developed near the corneal margin, and was as large as a bean. It was removed entire, the conjunctiva being first dissected off. Some cilia were found inside and inclosed in the wall. Microscopically, it had the same construction as the first cyst. The third case occurred idopathically, between the cornea and the caruncle, and the cyst was removed entire. On examination it proved to have the same anatomical conformation.

21. The tumor occurred in a child aged six years, with marked exophthalmus and turning in of the eyeball toward the nose. It began in the ocular conjunctiva between the external canthus and the cornea, and spread rapidly to the median line and to the external canthus. Its surface was covered by fine granulations. The eyeball was immovable, and the lid could not be closed over it. The growth had previously been removed twice. Dyer enucleated the entire contents of the orbit, and then cauterized the cavity with solid nitrate of silver. On the sixth day the growth made its reappearance in the conjunctiva of the lids. It grew rapidly, a swelling appeared in front of the angle of the jaw, and numerous and alarming hæmorrhages occurred, followed by steady emaciation and death. All further operative interference had been refused by the parents. The mass removed proved to be a spindle-cell sarcoma, or recurrent fibroid, with the fibrillation very marked.

24. In the case of *vascular new growth in the vitreous* the patient was a woman aged twenty-eight years. There was diffuse haziness of the vitreous, with numerous large black flocculi. In front of the lower nasal portion of the optic disk was a whitish-gray mass, which projected forward and upward. At its base was a congeries of minute vessels, some of which formed a fringe projecting downward, and from it a thin loop of vessels ran still farther into the vitreous. The main white stem at its base was about one and a half times as thick as the largest branch of the central retinal vein. It ran upward in an S-like curve, gave off a loop of small vessels toward the nasal side, and then, continuing upward, curved in the opposite direction. From its summit four fine loops of blood-vessels projected upward and forward. The elevations varied from +14 to +8, the eye being emmetropic.

The *recurrent papilloma of the corneo-scleral margin* occurred in a man aged fifty-six years, as a vascular cauliflower-like growth, and was firmly adherent to the superficial layers of the cornea. It was removed by Beer's knife, and its base cauterized with silver nitrate. Five months later, a second growth of the same size was removed from the same place, and the base again cauterized with nitric acid. Eighteen months afterward there was no recurrence. Microscopic examination showed numerous vascular loops covered with epithelium.

26. The tumor occurred in a child two years old. The conjunctiva was opened on the nasal side, below the internal rectus, and the tumor was then detached from its connections, cut through close to the optic foramen and then close to the sclerotic, and removed entire. The ocular muscles were left intact. The exophthalmus did not recede, though the lids were united over the eyeball by suture. The cornea sloughed, the eye became atrophied, and the child has since developed some head symptoms. On examination, the tumor proved to be of a very mixed pathological structure, and was termed a myxomatous glio-sarcoma of the optic nerve. It was said to have been of traumatic origin. Nine months later there was well-marked choked-disk in the other eye.

31. Noyes calls attention to a method of repairing deficiencies about the inner portion of the lower lid by sliding the whole cheek, together with the remaining portion of the lower lid, inward and upward. The advantages he claims are: 1. The flap can not slough. 2. The flap is adequate and in perfect coaptation. 3. The incisions are so made as not to be conspicuous. One of the incisions is made in the furrow along the nose as far as the ala nasi, and the other one horizontally outward across the temple toward the upper border of the insertion of the cartilage of the ear, and sometimes reaching it. He considers that the operation has a wide range of application.

32. The apparatus consists of a brass arc revolving around an horizontal axis, the latter sliding on a vertical rod. The arc embraces in its curve about 140°, and is cast accurately on a uniform curve of 35·5 cm.

radius, and is in two parts. The arc is 65 mm. broad, the face is blackened, and a white line is drawn through the middle along its whole length. It is divided by similar white lines, at right angles to this line, into spaces of 10°. On the reverse surface of the arc are radiating lines, which are drawn round the axis in spaces of 30°, running from zero at the left horizontal line upward and around to 360°. On the left-hand side of the axis, on the horizontal line, is an index pointing to these radiating lines.

34. The tumor occurred in a boy aged seven years, as the result of a blow on the eye. Two weeks after the accident there was a protruding and immovable eye, great chemosis of the conjunctiva, and total blindness. The eye was enucleated, and, on being opened, was found not to contain any growth. The tumor in the orbit increased rapidly, and four months later, when the boy died, it extended to the chin and into the antrum, loosened the malar bone and bridge of the nose, and pushed down the roof of the mouth. It weighed 1¾ pound. It proved to be a round-cell sarcoma.

35. The foreign body had remained in the eye a month before Pooley saw the case. In the posterior pole of the lens was a small foreign body of a black color, the lens being somewhat cloudy. It was decided to wait till the cataract had involved the whole lens before operating, but nearly eight weeks later signs of cyclitis appeared, and enucleation was performed. When the eye was opened, an opening was found in the posterior capsule, and a piece of steel 2 mm. long was found lying on the ciliary processes and surrounded by an abscess, with purulent infiltration in the vitreous.

36. Bul cites two cases—one of pure hyperostosis of the left wing of the frontal bone, the left malar, the squamous portion of the left temporal, and possibly of the sphenoid, in a man, æt. nineteen years. The hypertrophy of bone began in his ninth year, without any known cause. The eye on the corresponding side was not affected, though there was exophthalmus. The second case was periostosis of the orbital portions of the frontal, malar, and superior maxillary bones from traumatic periostitis, occurring in a man, æt. thirty-two years, from a severe blow received four years before. In this case no treatment proved of any avail, though carried on for a long time. In the first case no treatment was attempted.

37. Theobald adds the histories of twelve more cases treated by his method, and claims for it more satisfactory results than with the old method. He advises the continuous use of these probes for a long time, certainly as long as any blenorrhœa exists or the strictures show a disposition to recontract. He gives some very necessary rules as to the shape of the ends of the probes, and the manner of employing them.

38. This paper does not deal with the development of all the constituent parts of the eye, but includes the eyelids, conjunctiva, lachrymal apparatus, and lens. The embryos used were those of mammalia, those of the ox being the principal ones. In the development of the lids Von Ewetsky distinguishes three stages. The first begins with the commencement of their foundation, and ends with their meeting each other over the cornea. This stage is of short duration, and is characterized as that in which the lids assume their proper shape. When they have united over the cornea the second period begins, which ends when the lids are again separated so as to leave the cornea free. This stage lasts much longer than the first, as it is during this period that all those complicated structures which characterize the lids make their first appearance. With the completion of the separation of the lids begins the third stage, during which the various parts become completely developed. Von Ewetsky gives a detailed account of the various processes of development in the different stages, illustrated by some exceedingly well-drawn plates. Contemporaneously with the formation of the lids, the third eyelid makes its appearance, in the form of an elevation of the mesoderm in the region of the fornix. The closure of the lids begins at the commissures by a development of the epithelium, which brings the corresponding portions of the two lids together. This union at the commissures is a kind of linear suture, which further inward becomes broader, and appears like a thin membrane. In the process of closure the long spindle-shaped cells change into round or slightly ovoid cells, which brings about a diminution in volume of the epithelial mass between the lids, and the latter are thus brought closer together by the shrinking of this mass. Upon this process depends the form of the lids and commissures, and there are periods in this process to which the formation of a coloboma could be ascribed. With this view a coloboma could not be looked upon as a fissure, for it arises only from an obstacle in the regular process of the closing up of the space between the lids, on account of which the edges of the lids can not be brought together. In the second period the various parts of the lids do not all begin to develop simultaneously, but they follow each other so closely that at the end of the first half of this period they are all to be seen in their initial state. The parts along the margins of the lids are the first to be recognized. Von Ewetsky next considers the epithelium of the lids and lid-sutures. The suture, he found, was not confined to the space between the lids, but continued some distance from it on their inner and outer surfaces, where it gradually lost itself in the epithelium. In regard to the Meibomian glands, he confirms Kölliker's view that they are formed from the epithelium in a solid condition, and produce their cavities later. The eyebrows commence to develop at a very early period of fœtal life, but the eyelashes are of later origin, and only appear after the lids have completely closed. The development of the sebaceous glands of the lashes and of the sudorific glands is next considered. The orbicular muscle Von Ewetsky found entirely absent in the early stages of development. It is probable that it originates from the cells of the lid, not simultaneously in all its parts, but successively from the base toward the margin. The conjunctiva is next considered. He believes that it depends for its origin upon the fornix of the lids, the epithelial cells of which are to be regarded as the matrix of the ocular conjunctiva and of the posterior part of the palpebral conjunctiva. A detailed account is then given of the process. In the account given of the development of the lachrymal gland, the author agrees with Remak and Kölliker. In speaking of Harder's glands, he calls attention to one point of difference between them and the lachrymal gland; and that is, that the offshoots in the latter come from the blind end or its vicinity, whereas in the former they are also found near the mouth of the gland. As regards the lachrymal sac and duct, he agrees with the older authors, that they are formed from the lachrymal groove, not in the shape of a hollow tube, but of a solid epithelial tract, which is afterward changed into a canal. In considering the development of the lens, he holds to Arnold's view, that the lens is at first formed solid, to become later a cyst by absorption of the central cells, which are not separate and distinct from one another, but form altogether a mass which completely fills up the lens cavity. These cells do not take any active part in the formation of the lens fibers, but disappear soon after the lens vesicle has been closed.

40. The first case occurred in a boy, in whose eye a piece of metal had remained for a year in the sinus of the anterior chamber, and finally caused purulent irido-cyclitis. The body was extracted through an opening made below at the sclero-corneal margin, and the eye subsequently became quiet and a vision of $\frac{20}{70}$ was gained.

The second case occurred in a man, æt. twenty-seven years, whose left eye had been perforated by a piece of metal seven years before. The foreign body had perforated the cornea, iris, lens, and vitreous, and had struck against the retina and become encapsulated in the wound. Here it had remained for nearly seven years, had then been dislodged, had fallen upon the ciliary body, and had lighted up plastic irido-cyclitis, which necessitated the removal of the eyeball.

43. After citing the histories of these rare cases in detail, with a full description of the ophthalmoscopic appearances, Nieden gives an explanation of the differences which existed in the several cases, regarding them as arrests of development at various stages. The pedicle of the ocular vesicle is furrowed at its lower part at a certain period of embryonic life close to the sclera, for the entrance of the intra-papillary vascular trunks. This furrow is gradually closed downward by thickening of its edges and walls, whereby the trunks of the central vessels come to be nearer to the center of the conducting structures. In the fœtal eye, the line of union of the closed furrow shows itself as a raphé. In one of Nieden's cases the development and form of the papilla were quite normal, and the sheathing of the vessels was regular, but the raphé was not normally developed. No firm union had taken place, but a sinus had originated, which afterward developed into a deep excavation, perhaps by increase of the intra-ocular pressure, or perhaps as a result of efforts at accommodation. If the closure of the furrow was arrested before a ring-like union was effected, the optic nerve must have become an horizontal ellipse. The central vessels could only be partially situated in their normal position in the optic nerve, owing to lack of material for sheathing them, and the optic disk must therefore appear drawn backward and downward. This condition was shown in another of Nieden's cases. In a third case of backward development, the disk was about three times as large as normal, the surface receded far backward, the vessels were never imbedded, but arose from the floor of the excavation up to the retina. There being no coloboma of other structures in these cases, we see that a disturbance of development may occur in the primary ocular vesicle, while the secondary has closed completely.

45. *For the adaptation of the opera-glass to extremely myopic eyes*, it is desirable that the field of view be as large as possible, that the glass be compact, light, and convenient, and that it have an extreme range of vision, with a magnifying power of something less than two diameters. These conditions must be fulfilled without making very noticeable the aberrations of the lenses, and this, according to Waldo, owing to the very low magnifying powers to be used. The glasses should be made with reference to avoiding undue curvature in the surfaces of the eye lens and capable of considerable extension between the eye lens and the object glass. Waldo gives details for the construction of such a glass for a certain high degree of myopia.

51. In this concluding article on the subject, the author considers nystagmus as occurring first in stripping-up of the cerebral cortex and the motor tracts belonging to it; next, the appearance of nystagmus in abnormalities of the motor and sensory tracts of the eye; and, third, the appearance of nystagmus in cases of disturbance of the functions of the mesocephale and cerebellum and their motor and sensory tracts. The first part of this paper may be found in the November number of the "Klinische Monatsblätter für Augenheilkunde."

53. The author briefly reviews the bibliography of the subject, and then first considers observations made by others as well as by himself on tuberculosis of the human iris, conjunctiva, and cornea. Three of these cases were observed by himself, and are given in detail. He then takes up the subject of tuberculosis by inoculation upon the eyes of animals, as observed by previous writers. This is followed by observations made by himself upon the development of tuberculosis by inoculation in rabbits and guinea-pigs. The matter inoculated was usually from tuberculous joints which had not ulcerated, and great care was taken to prevent any matter being included. The pus was first introduced into the anterior chamber, and this in eleven cases. In every case the same effect was produced upon the iris, viz., hyperæmia and swelling of the iris, with the formation of a gray exudation on the pupillary margin and posterior synechiæ. After the first week, the matter inoculated disappeared by absorption, and the iritis subsided entirely. Next appeared numerous gray points in the iris, which grew rapidly in size, and the cornea became tuberculous. The whole process required about three months. A microscopical examination of such an iris showed in the beginning that the tissue was infiltrated with a mass of round cells, which gradually became grouped together, and then the tubercle nodules developed in the usual manner. Hänsell next reports twelve observations in which the cornea was inoculated, and shows how the tuberculous nodules developed, in some the microscope showing a structure very similar to that of sarcoma. In another series of five inoculations of the conjunctiva, the period of incubation varied between fifteen and twenty-three days. In still another series of experiments, the inoculated tubercle from the iris and conjunctiva was reinoculated in the cavity of the abdomen, and, after a period of three months had elapsed, the animals were killed, and all the internal organs and membranes were found infiltrated with miliary tubercle. The article closes with some remarks upon the tuberculous process in general.

55. The author's observations and conclusions are based upon the histories of fourteen cases, which he reviews more or less completely in detail. Wherever an autopsy of such a case has been published, it is given in detail. He thinks that two points are especially to be considered in these cases: first, the appearances as observed at the height of their development; second, the gradual course which they take and the order of succession. In the majority of cases an injury of some sort, and generally a perforating wound, has been the cause. He describes, first, the symptoms of the pure, uncomplicated, pulsating exophthalmus, and subsequently pictures the usual complications. He rather questions the statement that aneurism of the ophthalmic artery may cause the symptoms of pulsating exophthalmus. Much space is given to a discussion of the cases of Nunneley and Rivington, and to a case observed by the author himself at Göttingen. His conclusions are as follows: The symptoms of pulsating exophthalmus are developed in a definite order of succession, terminating in a more or less pronounced oxophthalmus; in a subcutaneous, soft tumor, situated at the inner and upper angle of the orbital aperture; in visible and tactile pulsations of the globe and tumor; in a continuous *bruit* with rhythmical increase; in a cessation of these latter signs on compression of the common carotid artery of the same side; in a *bruit* perceptible to the patient himself; and in an evident distention of the subcutaneous veins of the upper lid and forehead. In most of the cases hitherto published, as proved by autopsy, almost the sole cause was a communication between the internal carotid and the cavernous sinus. Vascular tumors of the orbit can not at first be easily diagnosticated, for they may simulate a certain phase of pulsating exophthalmus.

56. The author goes somewhat extensively over the entire ground—historically, clinically, and pathologically, taking up, first, tuberculosis of the conjunctiva, illustrated by cases. The second part of his paper treats of iritis and iridocyclitis tuberculosa, or granuloma iridis, which he considers identical with it. The third part treats of the subject of chronic choroiditis tuberculosa. Haab thinks that tuberculosis of the eye is much more common than has hitherto been believed, and, from his showing, it certainly does occur with much greater frequency on the continent of Europe than in the United States.

57. This is a continuation of a paper begun in a previous number of the same journal. The author reports the condition of the retinæ, and the optic nerves and tracts, of an old woman who had been entirely blind in the right eye from glaucoma. The atrophy of the right nerve was complete. The remaining layers of the retina were intact. The left optic nerve was normal. The left optic tract was smaller than the right, and of a gray color. This gray discoloration could be followed toward the median line into a cavity in the chiasm below the nerve of the same side. The white upper border of the tract and the circumferential zone are the uncrossed nerve-bundles of the left tract, still intact; and the gray portion is the crossed, atrophied bundles. In sections of the chiasm it was clearly evident that these fibers did not leave the left side, a proof that the course of the uncrossed bundles is the same in man as in the dog. The lower commissure was found relatively large and clearly to be distinguished from the real optic tract, and its fibers were of the same caliber as those of the tract. In the left optic tract the gray degeneration could be traced to the primary centers. A further investigation into the condition of the tract will be made subsequently.

58. The author describes a cataract occurring in the course of chronic degenerative nephritis with albuminuria. His observations are based on twenty-one cases. He gives the detailed histories of eight cases, all with albuminuria and cataract, and thinks the occurrence of the cataract in these cases was due to the kidney trouble. But seven of the patients had reached the age when senile cataract would be apt to develop. There was nothing specific in the shape, color, or manner of growth of the cataract, which, furthermore, was always binocular. Four of these cases were operated upon, and the cataract removed with entire success, and a good visual result.

65. This was probably a dermoid tumor of the conjunctiva, which encroached upon the cornea. It is described as a mole reaching from near the outer canthus over upon the cornea, being of a brown color and rounded shape, and from its top sprang a tuft of wool, the fibers of which measured 6 cm. in length.

66. The patient was a highly nervous young woman, in whom the trouble began with a conjunctivitis, followed by convergent squint of one eye with annoying diplopia; then double convergent squint, with one eye standing higher, followed by marked amblyopia in both eyes. The refraction was slightly myopic. Upward and outward from the optic disk in each eye was an irregular whitish patch, resembling opaque optic nerve-fibers. Subsequently convulsions appeared, followed by anæsthesia of various nerves, especially the fifth cranial, and a feeling of constriction and weight in the cardiac region. These symptoms were almost recovered from on several occasions, but recurred again and again.

68. The author has collected the hitherto published cases of this form of iritis into a group, and then gives a clinical description of the disease from the facts elicited. One peculiar feature among the symptoms is the occasional very sudden appearance of the exudation into the anterior chamber. He thinks this variety of iritis should be distinguished from the other forms hitherto described.

72. There are a number of interesting cases reported, among which may be mentioned the following: 1. An abscess in the sclera, near the corneal margin, in a woman, aged twenty-nine years, following a violent attack of trifacial neuralgia. Sclero-keratotomy was done with a good result. Another case occurred in a child, aged sixteen months, in which perforation of the abscess was followed by what was probably a sarcomatous tumor. 2. A case of melano-sarcoma of the iris in a woman aged thirty-five years. The tumor involved the lower quadrant of the iris, was lobulated, and filled that part of the anterior chamber. Enucleation was refused. 3. A case of abscess in the iris, in a boy aged twelve years, in the lower and outer quadrant, which disappeared under the use of atropia and local bleeding. 4. A case of foreign body in the iris without cataract, in which a piece of steel was removed, with a sector of iris, resulting in a complete cure. 5. A case of complete detachment of the iris brought about in operating for a secondary membranous cataract, in which the final result was favorable.

78. In a second report on this subject, out of a total of 21,600 patients during a period of six years, Becker observed seven cases of this disease. Six of them were in women. A careful observation of these cases convinced Becker that the spontaneous arterial pulsation, present in all of them, was due to paralysis of the nerves of the vessels.

79. Whenever, in the operation for extraction, there has been a bruising of the wound or of the iris, with or without hæmorrhage, or when there is any affection of the conjunctiva or lachrymal sac, or if the eye operated upon has been the seat of recurrent attacks of iritis or iridochoroiditis, Wicherkiewicz advises the use of iced compresses for half an hour or an hour at a time, before the bandage is applied. If there is muco-purulent discharge from the conjunctiva or lachrymal sac, he uses iced compresses for several hours every day. It would be much better surgery not to attempt an extraction on such eyes until the conjunctival or lachrymal disease had been cured.

80. Thrombosis of the central retinal vein may be marasmic in origin, as in old people with atheromatous vessels; or phlebitic, without any disease of the vessels. It causes suddenly either marked diminution of vision or total amaurosis. With the ophthalmoscope the vessels are seen to be very tortuous; the arteries may be very much reduced in caliber, but they are never empty; the veins are generally engorged. The vessels may be empty at one or more points, in consequence, perhaps, of acute œdema. The process ends in retinal hæmorrhages and atrophy of the optic nerve.

84. Cohn found by experimentation that the distances at which most colors were recognized by the electric light were much greater than by good sunlight.

85. Berlin reviews briefly the various theories that have been held in regard to the causation of blindness in these cases, and then states his own former view, that loss of vision after injury of the skull by contusion must be due to a fracture of the roof of the orbit, which has little resisting power, and which involves the optic nerve either directly or indirectly. But, after carefully studying the statistics of published cases which had been examined after death, he has been led to modify this view in some respects, at least so far as to accept the view of Hölder and others, that the line of fracture must run through the walls of the canalis opticus. In none of the cases which he himself examined was there any hæmorrhage in the sheath of the optic nerve, unless there was a fracture of the canal.

88. This tumor returned several times after removal, and proved to be a granuloma. It finally involved the cornea and led to perforation, and the eye was enucleated. It returned in the orbital tissue, and the whole contents of the orbit, with the periosteum, were removed. Though the growth was at first a granuloma, the recurrent growths finally took on the appearance of epithelial cancer. It returned again at the margin of the orbit, and the neighboring glands soon became infiltrated.

90. Knies thinks that in the disease known as iritis serosa the whole uveal tract is involved, and prefers to call it uveitis. He finds the cells on Descemet's membrane destroyed by the punctate exudation. This exudation resembles the gelatinous form seen in the anterior chamber in spongy iritis, and the fibrin of the blood no doubt plays a part in this exudation.

93. Steffan considers briefly the optic-nerve lesions met with first in tabes or sclerosis of the posterior columns, and next in the multiple sclerosis of the spinal cord and brain. In the first disease, the progress is always toward total atrophy of the optic nerves; but in the multiple cerebro-spinal sclerosis the termination is seldom in total atrophy of the optic nerves. He then considers the nature of the process in the two lesions and the tissue most involved. He then treats somewhat fully of lateral sclerosis and the points in which ophthalmologists and neurologists are so much at variance. The former regard lateral sclerosis as a very common cause of optic-nerve atrophy, while the latter hold that the pathognomonic sign of lateral sclerosis is that the brain and cranial nerves remain intact. Steffan thinks the neurologists are right, and that the ophthalmologists have mistaken multiple sclerosis for lateral sclerosis. His paper closes with a brief mention of the little that we know of the connection between optic-nerve lesions and acute spinal diseases.

96. Leber calls special attention to the influence of what are known as general infecting diseases upon the eye in causing inflammation of the uveal tract. Under this head he considers both rheumatism and gout, and in support of this idea cites Klebs's observations of a peculiar fungus upon the valves of the heart in rheumatic endocarditis, which he described as Monadina. It is well known that cases of iritis known as rheumatic yield more readily to preparations of salicylic acid than to other remedies, and this Leber regards as another proof of the infecting nature of the disease. He thinks some cases of parenchymatous keratitis are of this rheumatic nature.

97. Sattler emphasizes the importance of treating antiseptically all varieties of corneal infiltration, both in regard to bandages and to collyria. He uses a one per cent. aqueous solution of salicylic acid, made of a mixture of one part of pure salicylic acid, three parts of pure boracic acid, and one hundred parts of water. The two acids are dissolved in warm water by constant stirring; the solution is then allowed to cool gradually, and is then filtered. This solution is perfectly antiseptic. To prevent the extension of an ulcus serpens, Sattler has used with success the actual cautery. It causes little or no pain, and can be very readily applied without an anæsthetic.

101. After numerous careful examinations of brains, Stilling makes the origin of the optic nerve a very complex one. He recognizes the following origins: 1. The branch which passes into the thalamus partly by means of the corpus geniculatum laterale. 2. The branch which passes to the corpus geniculatum mediale. 3. The superficial branch, which passes directly to the corpora quadrigemina. 4. The origin from the crus cerebri. 5. The origin from the tuber cinereum. 6. The origin from the substantia perforata anterior. 7. The origin from the surface of the optic thalamus. In the tuber cinereum and its vicinity he finds a ganglionic layer for the origin of the optic nerve, but of what significance this may be he does not know.

107. The amyloid degeneration in this case probably began in the conjunctiva, but subsequently involved the tarsus of each lid, and represented almost a complete ring, which was open on the side toward the nose. The tumors were removed without any difficulty from the lids of both eyes, and within five days the patient could open the eyes. There has been no return of the growth. A microscopical examination agreed in the main with the results of Leber's observations, but the degree of development was much more marked than in any case hitherto published. A very uncommon feature in the case was the presence in the conjunctiva of small white bodies, which proved to be partly chalk and partly true bone. Von Hippel does not think it probable that there was any necessary connection between this bone-formation and the amyloid degeneration.

108. Pagenstecher, in discussing the relations of detachment of the vitreous to cataract and cataract operations, takes occasion to dissent strongly from the view that the closure of Fontana's space is the cause of glaucoma. He considers a knowledge of these changes in the vitreous and of their connection with chronic cyclitic processes of special importance for a comprehension of the origin of cataract in the interference occasioned to the nutrition of the lens. The detachment of the vitreous in all these cases is anterior, near the ora serrata.

109. The microscopical examination of Sattler's case of pemphigus of the conjunctiva is the first on record. The swelling of the ocular conjunctiva was found not to be due to an infiltration of the conjunctiva with lymphoid cells, for the wandering cells were few in number, but rather to an enormous swelling of the connective-tissue fibers and to a dilatation of the lymphatic spaces by fluid. The subepithelial layer was very cloudy and opaque, and extended some distance upon the cornea. It was found filled by a granular mass, which was colored neither by Bismarck brown nor by hæmatoxylin. The entire epithelial layer, very much thickened, consisted of horny scales, which were easily detached. The cornea was entirely destitute of epithelium, and ulcerated in various spots, but there was no development of blood-vessels in it.

113. Mr. Adams's instrument was constructed for the purpose of focussing artificial light on the cornea and magnifying the image, while the operator's hands are free for any manipulation that may be necessary, as in removing a foreign body from the cornea. It consists of a band or fillet encircling the patient's forehead, the anterior part being made of metal, into which two metal arms are screwed, which carry convex lenses in a clip. These arms move in every direction, and are so constructed as to enable the surgeon to command a view of either eye.

115. Abadie thinks that Landouzy is right in assuming the existence of a cortical rotatory center for the eyes, for without it physiological vision would be impossible. He thinks this is proved in any case of convergent squint in which two operations are required upon the internal recti muscles of both eyes for its correction. From this he infers that the innervation of the internus of one eye and the externus of the other eye is always the same, whatever may happen.

116. Galezowski makes the following distinctions: Traumatic optic-nerve atrophy may either be simple atrophy without cerebral symptoms, or be accompanied by severe cerebral symptoms, paralysis of the ocular muscles, and hemiplegia, or it may follow a neuro-retinitis or an intra-vaginal hæmorrhage. A distinction should be made between direct lesions of the optic nerve posterior to the entrance of the central retinal artery into its sheath and those which are situated at a point in front of the entrance of that vessel. Galezowski illustrates these several varieties of traumatic optic-nerve atrophy by cases. It is, however, not always possible to classify cases in this way, and a wide margin is left for errors in diagnosis.

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11. Woakes, E.—Further observations on throat-deafness associated with paralysis of the palato-tubal muscles. "Amer. Jour. of Otology," Jan., 1880.
12. Blake, C. J.—A form of middle-ear syringe. "Amer. Jour. of Otology," Jan., 1880.
13. Todd, C. A.—A simple modification of the hand-atomizer. "Amer. Jour. of Otology," Jan., 1880.
14. Buck, A. H.—The comparative value of leeches, heat, and incisions, in the treatment of acute circumscribed inflammation of the external auditory canal. "Amer. Jour. of Otology," Jan., 1880.
15. Roosa, D. B. St. J.—Clinical remarks upon diseases of the internal ear. "St. Louis Med. and Surg. Jour.," Jan., 1880.
16. Pritchard, U.—A case of foreign body in the ear producing severe cerebral symptoms. "Amer. Jour. of Otology," Jan., 1880.
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21. Gruber, J.—Die Galvanocaustik in der Ohrenheilkunde. "Allg. Wien. med. Zeitschr.," Jan. 6, 1880.
22. McBride, P.—Contributions to the pathology of the internal ear. "Jour. Anat. and Phys.," Jan., 1880.
23. Richey, S. O.—A case of reproduction of the membrana tympani. "Amer. Jour. Med. Sc.," Jan., 1880.
24. Sexton, S.—On affections of the ear arising from diseases of the teeth. "Amer. Jour. Med. Sc.," Jan., 1880.
25. Pomeroy, O. D.—On subacute and chronic non-suppurative inflammation of the tympanum and Eustachian tube. "Med. Record," Jan. 10, 1880.
26. Knapp, H.—A case of parotidean and intra-tympanic malignant tumor. "Arch. of Otology," viii., 4.
27. Hartmann, A.—On sclerosis of the mastoid process. "Arch. of Otology," viii., 4.
28. Moos, S.—On a traumatic, movable hæmatoma of the membrana tympani. "Arch. of Otology," viii., 4.

29. Roosa, D. B. St. J.—Syphilitic diseases of the internal ear. "Arch. of Otology," viii., 4.
30. The Same.—A new aural douche. "Arch. of Otology," viii., 4.
31. Burnett, S. M.—Objective aural sounds produced by voluntary contraction of the tubal muscles. "Arch. of Otology," viii., 4.
32. Capron, F. P.—Report of the proceedings of the Otological Section of the Brit. Med. Assoc., held at Cork, 1879. "Arch. of Otology," viii., 4.
33. Turnbull, C. S.—The audiphone and dentaphone. "Arch. of Otology," viii., 4.
34. Hartmann, A.—Ein Fall von Rundzellencarcinom, ausgehend von der Trommelhöhle. "Zeitschr. f. Ohrenheilk," viii.
35. Moos, S.—Exstirpation des ganzen Hammers gleichzeitig mit einem von seinem Handgriff entspringenden Polypen. "Zeitschr. f. Ohrenheilk.," viii.
36. McBride, P., and James A.—Epilepsy, vertigo, and ear disease. "Edinburgh Med. Jour.," Feb., 1880.
37. Jones, W.—Clinical lecture on the elucidation of the nature and treatment of the diseases of the ear, etc. "Lancet," Feb. 7, 1880.

3. Brunner is inclined to explain the ringing in the ears produced by the action of compressed air as a mechanical irritation of the fibers of the acoustic nerve, and not by the aid of the specific terminal organ in the labyrinth—analogous to the perception of light caused by pressure on the eye. In cases of reflex tinnitus, the nervous apparatus takes part, and Brunner thinks that there must at least be a hyperæmia of the acoustic nerve. He is also inclined to regard the various noises met with in middle-ear catarrh as the result of mechanical irritation.

5. This is an extract from a paper read in September before the British Medical Association, at Cork. McKeown thinks collodion may be employed to break or stretch adhesive bands in the tympanum. It diminishes, and sometimes completely stops, noises and other subjective symptoms. It improves the hearing in most cases. A number of applications, by means of a brush, should be made directly to the drum-head. Miot thinks the remedy can be of only temporary benefit, and does not think it can ever permanently alter the curvature of a diseased drum-head.

6. Malignant disease of the ear is not common, and hence cases of this sort should always be carefully reported, and, if possible, an accurate microscopical examination made. Unfortunately, the three cases here published are very incompletely and inaccurately reported, and the whole account is a type of carelessness and lack of appreciation of details, and a fair example of a kind of medical literature that is too common. The tumors were probably sarcomatous, but we are not told how or where the disease began, nor what tissues the growths invaded.

8. This method consists in passing an instrument shaped like an ordinary nævus needle, with a properly formed hook at the end, bent toward the concavity of the needle. It is passed just over the foreign body, with its flat surface against the superior wall of the meatus; the body is hooked and brought away as the needle is withdrawn with its handle elevated.

10. This article does not describe Graydon's audiphone, but Pritchard's own instrument, which consists of a vibratory drum, with a convenient handle for the listener to hold. This drum has attached to it on one side a style, longer than that for the ordinary phonograph, and tipped with boxwood; from the other side proceeds a speaking-tube. If, in a case of external or middle-ear deafness, the patient hold the boxwood tip to one upper tooth, or to the mastoid process, he can hear a whisper spoken through the tube, the sound-vibrations being conducted through the skull to the external ears.

11. Woakes describes a group of cases which he defines as cases of paretic deafness, distinct from the cases of "progressive deafness" of Webersiel, and hence not to be confounded with the initial stage of the latter.

14. After analyzing quite a large number of cases, and comparing the results of the various methods of treatment, Buck sums up as follows: "1. Incisions can not be depended upon to give permanent relief from pain, or to materially shorten the disease. They should, therefore, be used only after local blood-letting or hot applications have been faithfully tried without success, or where the appearance of the inflamed part indicates the probable formation of a collection of pus. 2. The application of heat is preferable to local blood-letting by leeches. 3. Of the various means at our command for applying heat to the inflamed part, the pleasantest, and at the same time the most effective, is the hot douche. In a few cases, however, the patient finds some form of dry heat more effective in relieving the pain."

18. Burnett indorses Yearsley's recommendations of the cotton pellet, and, in addition to the rules laid down by Yearsley, he adds that the application and renewal of the cotton pellet should be done only by a skilled physician, and that, after it has been successfully adjusted, it should be worn as long as possible by the patient.

21. Gruber uses the old apparatus of Voltolini, consisting of a carbon-zinc battery of 7, 14, or 21 elements, according to the purpose required. He advises great care in its use, for in many patients the slightest application causes very severe reaction. Hence the individuality of the patient should first be considered. In a bony structure, richly supplied with nerves and covered with thin skin, the actual cautery should always be employed with extreme care, and in the external auditory canal and middle ear we have just such a delicate bony structure. Grüber thinks the proximity of the brain should be especially remembered in using this method of treatment.

22. I.—*Croupous Inflammation of the Cochlea.*—The patient's condition pointed to intra-cranial tumor, pressing upon the auditory and facial nerves on the right side. Deafness had existed for a year, and facial palsy for six months. The autopsy revealed a small, round-cell sarcoma, affecting the cerebellum and the petrous portion of the temporal bone, pressing on several of the cranial nerves, and sending a process into the internal auditory meatus. Nothing abnormal was found in the tympanum. When sections of the cochlea were examined, part of the lumen was found filled by a yellow substance. This occupied a considerable part of the scala vestibuli, and was composed of delicate straight fibers, interlacing and inclosing in their meshes small cellular bodies, leucocytes with a granular interior, and, in some cases, vacuoles. Briefly, the appearances were those of inflammatory lymph. The periosteum of both scalæ was thickened and infiltrated with fibrine and leucocytes, loosened from the bone, and deprived of its epithelial lining. The bone itself showed signs of sarcomatous infiltration, which had probably occurred through the cochlear branch of the internal auditory artery. McBride thought that the deafness was first due to inflammation of the cochlea, and not to direct pressure on the auditory nerve.

II.—*An abnormal condition of the semicircular canals in a patient who died of acute rheumatism.* A section of one of the canals proved to be angular, and not oval. The membranous canal was separated from the periosteum by a delicate reticular tissue, composed of bundles of fibers of various thickness, with connective-tissue nuclei. Free nuclei were also seen, which were no doubt the nuclei of epithelial cells.

23. Of seven cases treated by the author, in five of which the entire drum-head was destroyed, the membrane was restored in six cases, with decided improvement of hearing. The treatment was directed to the middle ear as the seat of the disease, and not to the edges of the perforation, as in Richey's experience any such cauterizing agent as silver nitrate applied to the edges of the membrane seems to retard rather than advance its formation. The author recommends the use of a solution of silver nitrate of the strength of an ounce to the ounce of water. Early in the process of repair the membrane grows rapidly, but the subsequent progress is tedious.

26. The patient was a man, æt. thirty-seven years, in whom the parotidean tumor had been growing for seven years. Sudden deafness came on in the ear, and an examination gave evidence of tympanic disease. The slow development of the pre-aural and infra-aural tumors, the pushing forward and appreciable resistance of the drum-head, with the absence of inflammatory symptoms, seemed to the author proof of the existence of a tumor within the drum. An incision into the drum-membrane showed a reddish, fleshy growth, filling the middle ear. Knapp inferred that the case was one of primary parotidean growth, which had entered the tympanic cavity through the Glaserian fissure or its vicinity, and thought the tumors were adeno-chondro-sarcomatous. The parotid tumor was excised by Dr. Sands, and proved to be an enchondroma, covered by parotid glandular tissue externally. No connection existed between the parotid and the aural tumors, though very careful search was made. One month later an attempt was made by Dr. Buck to remove the aural growth. A large part was cut off with a curved knife, and then the "rongeur" was used, but the hæmorrhage became so profuse that he was obliged to desist. The tumor grew somewhat rapidly, the auricle was raised by a growth beneath it, as large as a man's fist, the meatus was filled by it, the cutis subsequently ulcerated, and capillary hæmorrhage began to occur from the denuded surfaces. The patient became very much emaciated, and died from exhaustion fifteen months after the first operation. The tumor was 22 inches in circumference at the base, 8 inches antero-posteriorly, and 7 inches vertically. No autopsy. No head symptoms occurred at any time. Though no connection was found at the time of operation between the extra- and intra-aural growths, it must still be regarded as probably having existed.

27. The author describes sclerosis in this region as of two varieties: first, an idiopathic, chronic periostitis and osteitis interna of the mastoid process, developed after the cessation of a tympanic inflammation; second, a morbid process occurring at the same time with an inflammation of the tympanum. The autopsy of one of his cases showed that the most violent pains might ensue without any inflammation in the drum, without pus in the mastoid portion, and without distinctive disease of the bone. These violent pains in connection with idiopathic sclerosis can be relieved by opening the mastoid process. In all the four cases mentioned, the sclerosis was limited to the interior of the mastoid process, and no deposit of bone could be demonstrated.

29. This is a critical review of two papers by Dr. Sexton and of one by Dr. Buck, as well as a defense of Dr. Roosa's own views on the subject, which were called in question by Dr. Sexton. Roosa takes up the quotations from the works of Sanders and Wilde, which he thinks have been misunderstood. He also thinks that good work has been done in investigating lesions of the labyrinth, in spite of statements by Schwartze and others to the contrary. He affirms that we are not entirely without positive evidence that the labyrinth is invaded in the course of syphilis, and cites one case by Moos and another by Gruber as proving this. He disagrees with Sexton's statement that, when a catarrh is modified by syphilis, sudden and absolute deafness becomes one of its symptoms, for he thinks there is no reason why syphilitic exudation in the middle ear should, any more than a catarrhal one, cause a sudden and absolute deafness. Roosa also thinks that the evidence cited in some of the cases of the sudden deafness of syphilis as dependent upon disease of the middle ear, leans very strongly toward disease of the labyrinth. He prefers to believe that a deafness coming on suddenly, attended by dizziness and staggering gait, as well as frontal headache, is much more likely to depend upon a lesion of the labyrinth. He also dissents from Sexton's opinion that syphilitic lesions seldom, if ever, reach the middle ear from the throat. He then takes up the subject of the value of the tuning-fork as a means of diagnosis in disease of the internal ear. He is very positive in his statements that, if experience is worth anything upon this subject, it shows that it is especially in affections of the labyrinth that the tuning-fork is not heard at all upon some parts of the skull, while in those of the middle ear alone its sound is always intensified. He next discusses *seriatim* the conclusions reached by Sexton, and finishes by tabulating the conclusions which he himself has reached on the subject, the most important of which are as follows: *a.* Absolute or nearly absolute deafness and the inability to hear certain tones are symptoms of either primary or secondary lesion of the labyrinth. *b.* Syphilitic disease of the labyrinth, if *vigorously* attacked by means of mercury and the iodide of potassium soon after the beginning of the disease, may often be alleviated and sometimes cured.

31. The patient, when examined laryngoscopically, showed the following movements in the pharynx when the sound was made. The anterior wall of the pharyngeal orifice of the tube remained stationary, while the posterior lip was moved obliquely forward and upward across the mouth of the tube, the edge sometimes reaching to the anterior border and completely closing it, but usually going only about two thirds of the distance across. The uvula was at the same time drawn upward. Burnett thinks the sound is caused by a separation of the moist surfaces of the mouth of the tube after they have been brought together by the contraction of the levator palati. The value of the observation lies in the light which it throws on the action of the muscles of the Eustachian tube.

33. The author gives a brief account of the two instruments, and defines their capabilities. The audiphone is entirely dependent upon the condition of the auditory nerves. *Absolute nervous deafness*, caused by direct implication of the auditory nerve, is in no way benefited by the use of these two instruments. *Profound acoustic deafness*, caused by direct implication of the middle ear, is markedly relieved by the use of the audiphone. Those who are partially deaf, from whatever cause, derive, as a rule, no benefit from the application of the audiphone. To use the audiphone with success, the auditory nerves must be normally sensitive, the hearing power for a loud voice, in middle-ear deafness, must be reduced to a minimum, and the upper front teeth must be solid.

36. Drs. McBride and James think that, in the cases of aural vertigo occurring in epilepsy, the vertigo is due to chronic irritation of the nerve terminations in the ampulla, which brings about a condition of unstable equilibrium in the nerve centers. They explain the occurrence at one time of simple vertigo, and at another of true epileptic convulsions, by supposing that the effects of peripheral irritation are cumulative, or that the peripheral irritations which produce such explosions vary in intensity and source.

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Miscellany.

Army Intelligence.—*Official List of Changes of Stations and Duties of Officers of the Medical Department of the United States Army from February 14, 1880, to March 13, 1880.*—Cooper, George E., Lieutenant-Colonel and Assistant Medical Purveyor.—To be relieved, temporarily, in the charge of the Medical Purveying Depot in San Francisco, California, by Captain H. Johnson, Medical Store-Keeper. S. O. 48, A. G. O., March 3, 1880. ═══ Heger, A., Major and Surgeon.—Having reported in compliance with orders from the A. G. O., is assigned to temporary duty at Department Headquarters. S. O. 42, Department of Texas, February 26, 1880. ═══ McElderry, H., Captain and Assistant Surgeon.—Having reported in person at these Headquarters, assigned to duty at Camp at White River, Colorado. S. O. 19, Department of the Platte, March 5, 1880. ═══ White, R. H., Captain and Assistant Surgeon.—Granted leave of absence for six months, with permission to go beyond sea. S. O. 55, A. G. O., March 11, 1880. ═══ Loring, L. Y., Captain and Assistant Surgeon.—When relieved by Assistant Surgeon D. M. Appel, to proceed to Fort Dodge, Kansas, and report for duty at that post. S. O. 39, Department of the Missouri, February 20, 1880. ═══ Hall, J. D., Captain and Assistant Surgeon.—Relieved from duty in Department of Texas and to report to Commanding General, Department of Dakota, for assignment to duty. S. O. 35, A. G. O., February 13, 1880. ═══ Brown, P. R., Captain and Assistant Surgeon.—Assigned to duty at Fort Hamilton, New York Harbor. S. O. 39, Department of the East, March 11, 1880. ═══ Moseley, E. B., Captain and Assistant Surgeon.—Granted leave of absence for one month, to take effect on arrival at Camp at White River, Colorado, of Assistant Surgeon McElderry. S. O., 19, c. s., Department of the Platte. ═══ Finley, J. A., Captain and Assistant Surgeon.—To report in person to the President of the Medical Examining Board, in session in New York City, for examination for promotion, and, upon completion of the examination, to the Commanding General, Department of the East, for assignment to duty. S. O. 47, c. s., A. G. O. ═══ Appel, D. M., First Lieutenant and Assistant Surgeon.—Assigned to duty at Fort Supply, Indian Territory, relieving Assistant Surgeon Loring. S. O. 39, c. s., Department of the Missouri. ═══ Drs. George W. McCreery and Ed. D. Shué, of New York City, Richard C. Newton, of New York, and John J. Cochran, of Massachusetts, having passed a successful examination before the Army Medical Board, now in session in New York City, were, February 18, 1880, confirmed by the Senate as Assistant Surgeons, U. S. Army, with the rank of First Lieutenant.

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PERIARTHRITIS—A STUDY OF FORTY-SEVEN CASES.

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The large clinical field in which it has been my good fortune to labor for many years has enabled me to study with some degree of care very many cases of disease about joints, and the interest that such study has awakened in my mind has impelled me to trace out a large number of the same with a view to learning what proportion ever affect permanently the functions of a joint. I have often wondered how it was possible to have such extensive suppuration about a joint, such atrophy of a limb, such deformity, and yet have results so perfect. Of late years, the prefix *peri* has come to be of great service in medical nomenclature, and it really expresses a great deal from a pathological point of view. The loose cellular tissue is more or less abundant about all the organs, and when this becomes the seat of an inflammation, usually primary, we speak of it pathologically by using the prefix *peri*, the name of the organ it surrounds, and the suffix *itis*. Thus, we have a perihepatitis, a perinephritis, a perisplenitis, a perimetritis, etc.

This same tissue that surrounds the articulations is frequently the seat of a primary inflammatory process, and for this we use the term *periarthritis*. Several years ago my attention was especially directed to the use of this term by a summary, in the "Half-Yearly Abstract," of a paper by Simon Duplay, published in the "Gazette Médicale de Paris," No. 37, 1872. This author's observations were limited to scapulo-humeral periarthritis. Occasional articles have appeared since the publication of Duplay's. The inaugural thesis of Fatome, No. 16, 1878, was on periarthritis of the knee, and an abstract of this was published in the "London Medical Record" for February, 1879.

My object in the present essay is to bring this term into more general use; to record the fact that the disease is of frequent occurrence; to give a clinical picture of the affection as it occurs about the different joints; to enable one to differentiate this from joint-disease, primary or secondary; and to show what perfect results may be expected if reasonable care be employed in its management.

In articular rheumatism, the seat of the disease is in the fibrous tissues, the joint, the aponeurosis, the sheaths of the tendons, the neurilemma, the periosteum, or the muscles and tendons; and hence we can not with propriety speak of rheumatism as being a periarthritis. There may be a myositis in the neighborhood of a joint; yet a pure myositis is a rare affection, and an entire muscle would most likely be involved. We have now a case of myositis ossificans under observation, and the function of the right shoulder is seriously impaired; yet the limitation of the process to certain muscles makes the term periarthritis an objectionable one. This case I have already presented to the Pathological Society, and a report can be found in the "Medical Record," October 30, 1875, p. 747. A bursa may become inflamed, and, by its expansion under a muscle, may give rise to an appearance of infiltration that would mislead one; yet, if the cellular tissue should participate in the inflammation, we should have a periarthritis. Bursæ do not, as a rule, behave in this manner, and we do not speak of a bursitis as a periarthritis. A periostitis near a joint becomes, sooner or later, a periarthritis, but does so by virtue of its extension, and it is the surrounding cellulitis to which we give the name. My paper does not deal with the advanced stages of articular osteitis, for in nearly all cases of this nature we have coincidently an arthritis.

In the foregoing remarks I have, I trust, fully defined the term employed at the heading of this article, and I have also dwelt sufficiently long on the pathological anatomy. The diagnosis, the prognosis, and the treatment I shall speak of more at length when I shall have detailed the histories of a few cases by way of illustration.

PERIARTHRITIS OF THE ANKLE.

CASE II.*—*Acute periostitis of distal end of tibia, with superficial necrosis; exfoliation of bone; complete recovery in three months; condition of limb six years later.*—A fairly nourished Irish lad, æt. eleven years, was admitted to hospital September 2, 1873, with a history of lameness of the right ankle of five weeks' standing. Without any known cause, his ankle became the seat of pain, the soft parts began to swell, and he had to resort to a crutch. The symptoms came on quite rapidly, and at the date of his admission there were already signs of constitutional disturbance, much infiltration about the foot and ankle, with deep redness of the skin, great tenderness, movements at the joint almost abolished, and over the internal malleolus two small ulcers through which sinuses communicated with bone. Joint disease was excluded, and the case was treated by rest, tonics, and lotions. *October 3d.*—There remained very little swelling around the joint. From the ulcer (formerly two) a piece of bone nearly as large as a pigeon's egg was removed with the forceps. This came from the internal malleolus. The recovery proceeded rapidly from this date, and by November 1st the ulcer had healed, the sinus had closed, the foot had been restored to its normal contour, its function had been reëstablished, the boy had grown stout, and a cure had been pronounced. Soon afterward he was discharged. *January 21, 1880.*—Examined carefully to-day, and found perfect in limb. Has never had any relapse.

CASE XVI.—*Simple periarthritic cellulitis; suppuration; perfect recovery within two months; examined four years later.*—January 27, 1876, there was brought to the Out-door Department a rachitic boy, æt. three and one half years, suffering from a disease about the left ankle of only a few days' standing. There were extra heat, redness of the skin, and considerable infiltration around the external malleolus; the parts were tender, yet, on careful examination, the joint appeared to be intact. There was no history of any fall, though the parents supposed that such had been the case. A diagnosis of periarthritis was made, and a simple evaporating lotion ordered. The patient made two or three visits, no notes of which were made, and I succeeded in finding him January 4, 1880, nearly four years later. He was free from any lameness or deformity, had no atrophy of calf or foot, there was no bony enlargement, no imperfection whatever in the movements either at the tibio-tarsal or at the medio-tarsal joint. All that remained by which a former disease could be recognized was a cicatrix just below the external malleolus. The father stated that an abscess formed very soon after his first visit to the hospital, opened, and was healed within six weeks, when the cure seemed perfect. Has never had any relapse.

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* These numbers correspond with those of my unpublished table.

Case XIX.—*Periarthritic cellulitis; recovery by resolution within a fortnight; examined three years later.*—A well-developed male child, æt. nineteen months, was brought to the Out-door Department October 5, 1876, with a round, boggy swelling over the left external malleolus, of four days' standing. No cause was assigned. The parts appeared as one sees them when caries of the ankle is present, but the history of the acuteness was so clear that a diagnosis was easily made, and cotton-wool with a roller was ordered—the foot, of course, to be kept at rest. I did not see the case again, but succeeded in finding the child on January 4, 1880. It was the picture of health, and I could find no sign of present or past disease about the ankle. The mother informed me that the swelling had all subsided by the end of the week following her visit to the hospital, and the child walked as well as ever.

Case XXVI.—*Acute periostitis of lower end of fibula, left side; necrosis and exfoliation of bone; recovery in three months; followed by chronic periarthritic cellulitis, right side; suppuration and recovery after fifteen months.*—Charles S., æt. twelve, in fair health, sought relief at the Out-door Department from a pain and swelling around the left ankle January 28, 1877. It had come on rather acutely, without apparent provocation. The ankle-joint was not involved, and the case was altogether very simple. Cold-water dressing, with avoidance of exertion, constituted the chief points in the treatment. The skin soon broke, and, on July 17th, a piece of bone of about the size of a pea was exfoliated. The parts speedily healed, and by August 6th the patient was discharged cured. *November 24th.*—Returns with swelling and pain around the *right* ankle, the internal malleolus especially. There is decided tenderness, with limitation in normal movement. Measurement over malleoli 8½ inches, over heel and instep 10⅜ inches; against 7¾ and 9¾ for the left side. The boy reported that he first felt a little pain in this foot the latter part of August, but that it passed off in a day or so, not to return until November 5th, since which date the symptoms had become more marked. This swelling and tenderness, it seems, passed off after a few days' rest, and the boy did not appear at the office again until September 4, 1878, nearly one year later, when there were some signs of periostitis of the lower third of the tibia on the *right* side, the joint this time being free. This swelling here he reported as of six months' standing, and as having resulted from a fall, though we suspected it a part of the same disease he had one year ago. Iodide of potassium was ordered, and on October 2d there was an abscess just above the malleolus, nearly ready to open. He was ordered to return in a few days for an incision, but did not return until November 6th, when it had already opened. The skin had sloughed, and an ulcer was present, not communicating apparently with bone. Under simple dressings it was nearly healed by the 20th, and on January 8, 1879, he was discharged again, cured. He reported occasionally by request, and, while a little pain was felt at times during the spring and early summer, he had no relapse. He was finally examined January 4, 1880, and found to be free from any disease, deformity, or impairment of function at either ankle. His mother reported that no bone had ever come out of the ulcer on the right leg.

PERIARTHRITIS OF THE KNEE.

Case VI.—*Thrombosis of the saphenous; secondary periarthritis; recovery by resolution in eight months; examined finally ten months later.*—A male, aged ten, was admitted to hospital June 12, 1878. A brother of this patient had acute synovitis of the hip, and his case has already been reported.* The boy whose case we now record is reported to have been subject to pulmonary diseases, indefinitely described. Still, he was generally in good health. Four weeks prior to his admission he was operated on for ingrowing nail (nature of the operation not learned), and two weeks later he was taken with pain, coming on suddenly one night, on the inner and anterior aspect of the left thigh. He was feverish and restless that night. Within a day or two the knee swelled, a few days later the thigh, and ten days from the beginning the foot and leg. From being stout and robust-looking, he had fallen away to a lean and haggard-looking boy by the time he first came under our observation. His face bore the marks of much suffering, and he had to be carried into the office with great care. His pulse was 130, respiration 36, temperature 103·5° F. (morning). He could not be induced to bear any weight on the limb, and, when asked to indicate the seat of pain, pointed to the lower third of the thigh, inner aspect. Here the mother, too, pointed as the seat of the initial pain, tenderness, and swelling. There can be felt at this point now an induration, subcutaneous, oblong, and lying in the course of the femoral vessels; the tenderness here is greatest, and extends downward to the internal lateral ligament, around the joint, taking in the ligamentum patellæ and the external lateral ligament, and upward along the vessels into Scarpa's space and the inguinal region. After a pretty thorough examination, there is no other point or region of tenderness to be found. The limb is swollen from the groin to the great toe; the heat is greatest about the knee, while the foot is comparatively cold. The thigh, at its upper, middle, and lower thirds, measured 2½ inches larger than its fellow; the knee, 2 inches larger; and the calf, 1 inch. The foot is proportionately large. Physical examination of the thorax reveals an apparent bulging in the left infraclavicular space, coarse and fine mucous râles in the same region, an absence of dullness, and no signs of endo- or peri-carditis. He has a loose cough, and is reported to have expectorated, though no sputa can be obtained to-day for examination. The limb is kept at rest in the extended position, evaporating lotions used, and the tincture of the chloride of iron administered internally. *January 13th.*—The auscultatory signs of yesterday have disappeared, and no further attention is given to the thoracic viscera. His pulse this evening is 120, and his temperature 100·5°. *January 28th.*—There have been no signs of suppuration since admission, and there is only three quarters of an inch difference now between the thighs and between the knees. All swelling below the knee has disappeared. With unimportant changes, the case progressed to a perfect recovery, the resistance to motion finally yielding entirely. He was under observation until the 6th of April, 1879, and was seen again for ultimate result on December 20th, when the functions of the joint were found perfectly reëstablished, the limbs equal in size, and the boy free from any lameness or deformity.

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* Gibney, "Diagnosis of Hip Disease," "Am. Jour. Med. Sci.," October, 1878.

CASE XV.—*Periarthritis following vaccinia; complete recovery in one month; final examination three and a half years later.*—A delicate male child, aged two and a half years, came under treatment in the Out-door Department May 16, 1867. Two weeks before this date it was vaccinated, and one week later the right knee began to swell, and the ham-strings to contract. On May 15th the mother reported the child was taken to one of the colleges, where the case was examined very thorougly for hip-disease, and on the same night she observed a circumscribed swelling of the calf. This was quite apparent this morning, on examination at the hospital, and in addition to the periarthritis of the knee, the signs of which seemed clear enough, there seemed to be a separate cellulitis of the calf. It was treated accordingly, and on the 24th, eight days later, an abscess was very apparent. This was incised, and three ounces of thick pus evacuated. The infiltration about the knee was much less marked, and the contractions were decidedly less. This speedily disappeared, and by the 30th the functions of the joint were perfect, and only the incision-wound remained. The case was regarded as about cured, and the mother was directed to bring the child back in two weeks. This she did not do, and I succeeded in finding him December 28, 1879, and, after a pretty careful examination, could elicit no signs of any disease or deformity. The only sign of former disease was a cicatrix.

CASE XX.—*Perinephritis with complete recovery; periarthritis of knee of same side three months later; recovery with perfect use of limb.*—In the "American Journal of Obstetrics and Diseases of Women and Children," in an article on "Perinephritis in Children," I reported a case, in which a cellulitis has since developed about the left knee. The child was a boy, aged two and a half years, and came under treatment for the second time March 20, 1876. On this occasion there was a swelling, with heat and pain, about the left knee, of six days' standing, coming on without apparent provocation. The movements at the joint were good and comparatively painless; there was 1½ inch increase in size, while the surface thermometer, applied over the internal condyle, registered 4° higher than at the same point on the opposite limb. Compression by means of cotton-wool and a knee-lacing was employed, and by the middle of the month following all swelling had subsided, and the case was regarded as cured. I saw the father on December 31, 1879, and learned that the boy had had no relapse, and that there was no lameness. The child, however, suffers much from a chronic impetiginous eczema of the scalp, and is under special treatment for this affection.

CASE XLVI.—*Periarthritis undergoing speedy resolution.*—John W., æt. seven years, was admitted to hospital January 22, 1880. The family history was good on both sides, and the boy had been perfectly well and free from lameness up to January 16th, on which date he fell to the floor, striking the left knee. Next day he walked lame, and has walked very little since. He did not complain of any pain, rested well nights, and only yesterday was there any swelling about the knee, though for three or four days he has held the limb extended, and has resisted any efforts at passive motion. His rectal temperature this morning is 102°, and his pulse is 128. Is thin, but fairly nourished, stands squarely on both feet, and walks with very little difficulty, scarcely limping at all; there is considerable infiltration anteriorly at the lower third of the thigh, extending down even to the spine of the tibia; there is extra heat of the skin, with very little tenderness on handling the parts—in fact, there is no tenderness over the lateral ligaments, and none anywhere except below the patella; no pain on crowding the articular surfaces together; none on lateral movements. Extension can be made to 175° (about perfect); flexion beyond 160° is resisted by muscular action, and causes pain. The patella is movable over the normal area, and, on being percussed, does not "click" against the articular surface beneath, as it does when there is effusion within the joint. The measurements are as follows:

	Right.	Left.
Middle of the thigh	10½ in.	10½ in.
Just above the knee	8¼ "	9½ "
Over the knee	8¼ "	9¾ "
Just below the knee	7 "	8 "
Calf	7½ "	7¾ "

A straight splint was applied, and cold-water dressings were employed. The signs within a week had nearly entirely disappeared, and there was less than one half an inch difference in the measurements. February 11th, they were equal, and a cure was complete. *February 20th.*—No sign of disease has recurred, and the boy is discharged.

PERIARTHRITIS OF THE HIP.

Case I.—*Phlegmonous periarthritis; complete recovery; result verified at end of seven years.*—A hearty-looking girl, aged seven years, was admitted to hospital August 10, 1872. The family history was free from taint, and the child herself had been sound and healthy until ten days preceding the date above recorded. A slight halt was first observed, and the cause was traced to a fall from the stoop. The mother next day examined the hip, and found swelling and heat over the gluteal region. She painted the part with iodine, and, finding the lameness to continue, brought her to the hospital, as already stated. The patient, on admission, stood with the right limb advanced and the foot a little everted, resting, however, squarely on the floor; walked quite lame, like one with hip-disease in the early stage. There was considerable infiltration throughout the gluteal region, giving quite a breadth to the nates on this side. The trochanter seemed to be enlarged, and pressure over this, as well as in the groin, caused much pain, referred to the hip. Flexion of the thigh was painful, and was resisted by muscular action. There was no shortening or atrophy of the limb. The pulse was 96, respiration 24, temperature 99·5°. A blister over the hip was ordered, and the blistered surface was dressed for two or three days thereafter with poultices. The termination of the infiltration will best be seen by the following notes: *August 21st.*—Just below the crest of the ilium a large furuncle is opened, and a pretty free exit is given to a quantity of thick pus, mixed with blood. *September 20th.*—The opening has closed. *October 24th.*—Improvement in every respect marked. The signs observed on admission have nearly all disappeared, although the case is to be continued under observation for a while longer. She was examined April 22, 1873, and no sign of disease could be found. The functions of the joint were perfect, and there was no muscular atrophy. I saw the child again in June, and no relapse had occurred; and in January, 1880, I saw the mother, who told me that the girl was at boarding-school, and never had had the slightest sign of recurrence of disease about that joint.

Case III.—*Suppuration of inguinal ganglia; deformity at hip consequent thereon; recovery.*—This case has been reported, in a paper to which reference has already been made, in the "American Journal of the Medical Sciences" for October, 1878. It is Case No. XV. of that series, and is on page 402.

Case IX.—*Extensive suppuration; complete recovery, with functions of muscles restored; final examination two years later.*—James C., aged nine years, was admitted to the hospital September 5, 1877, with a history of lameness dating from the 19th of August, from having fallen through a cellar doorway the day before. He had been resting poorly for the past two nights. On admission, his tongue is coated, his pulse is 120, temperature 101·5°, and he is fairly nourished. He stands with his right thigh advanced, knee semiflexed, and foot slightly everted; he walks decidedly lame, favoring the right side. The nates on this side is enlarged, and presents to the touch an elastic feel just about the trochanter, where there is also considerable tenderness. The surface temperature is 2° lower over this region of fullness than at the corresponding point over the right hip. There is 1 inch increase in circumference; tenderness in the groin, but none in the hip, as tested by pressure over the trochanter in the line of the neck of the thigh-bone, and by pressing on the knee (flexed) and on the foot (leg extended) in the axis of the limb. The movements are limited in all directions—in flexion to 90°, and in extension to 150°. There is no spinal tenderness, no ilio-costal fullness, no tenderness or induration in the iliac fossa. On the following evening a fly-blister was applied, and the usual after-treatment with poultices was adhered to; yet, on September 15th, the infiltration had increased to such an extent that the boy could scarcely be moved, so extremely tender were the parts about the hip; the circumference had increased three inches. From this time forth it became evident that suppuration would supervene, and the parts soon became greatly distended, the thigh assumed a degree of flexion amounting to about 90°, and on October 1st there was seven inches difference between the two thighs at the upper third. The boy had become greatly reduced. Abscess opened by incision, and two pints of pus evacuated. Tonics and stimulants are administered quite freely. The case, without further detail, progressed to a cure by November 10th, the opening of the abscess having closed by October 17th. The boy was discharged December 7th completely restored; no lameness, no deformity, in good health. On January 5, 1880, I sought him out, and made an examination of the limb, finding a joint absolutely perfect, so far as signs go. There was no atrophy of the limb, no loss of muscular power. The only sign of former disease was a cicatrix on the posterior surface of the thigh in the upper third.

CASE XLIII.—*Periostitis with superficial necrosis of upper third of femur; many signs of joint-disease; complete recovery after exfoliation of bone; acute periostitis of tibia, upper third, one year later; ultimate recovery.*—On the 23d of October, 1877, there hobbled into the Out-door Department, on crutches, a man aged twenty-two, of fair build, yet not well nourished; and his sufferings were so great, he said, that he had lost much flesh during the past fortnight. His lameness was of only four weeks' standing, and, in fact, none of his symptoms dated further back. He was a porter in a mercantile house, and fancied that he had strained himself while lifting. It seemed a plausible etiology, too, for his pain and soreness about the right hip began the day after a severe effort at lifting a case of goods. Swelling soon followed, and prior to the date of his visit to the hospital a blister had been applied. It was difficult to secure an examination at all satisfactory; yet there was found a marked degree of infiltration diffusely scattered throughout the gluteal and upper femoral regions, with tenderness on handling and on attempted movements at the hip. A diagnosis was provisionally made of hip-disease in its acute stage, and further vesication was ordered. *October 27th.*—Is able to walk now, and feels very much better. *November 5th.*—Walks with a very slight limp, has no pain, the infiltration is much less, and the patient wants to return to work. After a week or two he ceased coming, and returned to his vocation, although the movements at the joint were not quite restored. He was able, however, to do only very light work, and then suffered much pain after exertion. *March 29, 1878.*—Returns with a relapse—i. e., swelling, pain, and tenderness about the trochanter major, of two weeks' standing. The infiltration this time is phlegmonous in appearance, and the movements of the joint are very little, if at all, impaired. He was blistered again, and iodide of potassium was administered. This treatment was continued with temporary benefit, then acute symptoms recurred, and finally, on May 4th, an abscess on the upper third of the thigh, outer aspect, was opened. *May 21st.*—A small spicula of bone from the shaft of the femur exfoliated through the abscess opening. After this the discharge ceased, and the opening soon closed. *June 5th.*—Discharged cured; no lameness, no pain, no infiltration. Nothing further occurred until January 22, 1879, when he returned with a swelling and tenderness over the spine of the tibia on the same side, of ten days' standing. The circumference is one inch greater than that of the fellow limb at the corresponding point. Periostitis of the tibia is diagnosticated, and iodide of potassium, gr. x, t. i. d., ordered. *February 13th.*—Incision made to the bone, and more blood than pus evacuated. After a few days there was an increased flow of pus, and a few days later the wound closed. *February 21st.*—Discharged cured. *December 13, 1879.*—Seen to-day as a conductor on the Fourth Avenue Railroad, and declares that he has not suffered the slightest inconvenience since last spring. Considers himself perfectly restored.

PERIARTHRITIS AT THE SACRO-ILIAC JUNCTION.

Case IV.—*Gluteal abscess; death from exhaustion; autopsy.*—This case has been reported, in the paper to which reference has once or twice been made, in the "American Journal of the Medical Sciences" for October, 1878, p. 401. The child was three years of age, a female, and began to walk lame in December, 1874, when two years of age; was treated the first year for caries of the vertebræ, with a plaster-of-Paris jacket; came under our treatment December 14, 1875, when vertebral disease was excluded, and hip-disease suspected. The signs were so much against this disease at the hip, though, that this diagnosis was finally given up, and sacro-iliac disease made out. The abscess grew to enormous size, was opened, and the discharge continued until August 22, 1876, when diarrhœa set in, and the child died. I quote from my report in the "American Journal of the Medical Sciences": "An examination, post mortem, revealed the sac of an abscess about eight inches long by four wide, lying between the glutei muscles, and a careful search failed most signally to detect any connection with diseased bone. The hip-joint, the sacro-iliac joint, and the dorso-lumbar vertebræ were carefully examined, and found to be absolutely free from disease."

Case XII.—*Suppurative cellulitis, of seven months' standing, from a neglected tent; complete recovery; final examination four years later.*—On the 9th of March, 1875, a female child, aged one and a half year, was brought into the office of the Out-patient Department, and the examination, which was very superficial, resulted in a diagnosis of caries at the sacro-iliac junction. The child was feeble, and was with difficulty handled, on account of tenderness; the soft parts about the sacrum were extensively infiltrated, two or three ill-conditioned ulcers were present, and the skin around these was bluish, the veins were prominent, and there was a sero-purulent discharge which was rather abundant. I did not explore the ulcers and sinuses with a probe, nor did I go through with any of the recognized tests for the presence of disease at the sacro-iliac synchondrosis. I learned from the mother that this condition of the soft parts had existed for six weeks, and that the first sign she observed was a small point of redness and swelling, like an ordinary boil. She knew of no cause. I did not ask her anything about previous treatment; was hurried, and, as before stated, did not examine very closely into the case. It seemed clear to my mind at that time, for I thought sacro-iliac disease of common occurrence. I had not seen any cases about which I had felt sure as to diagnosis, yet I attributed this to my ill luck. Simple dressings, with tonics and occasionally stimulants, made up the treatment for the next six months. I did not see the case often, yet there seemed to be no marked change in the signs presenting from time to time, and while the health was improving a little I felt little uneasiness about the ultimate result. In September she suffered considerable pain, and there were four sinuses, with large openings, amounting to ulcers. *September 18th.*—The mother calls to-day with the child, and brings in her hand a piece of muslin, one inch square, which she found yesterday protruding from one of the ulcers. The muslin was far on the way to decay, and, on questioning the mother, she remembered well that, in the early part of February, seven months ago, the doctor who opened the "boil" inserted a piece of muslin to keep the wound open. She did not see the doctor any more, and had forgotten all about the tent. *September 22d.*—All the sinuses have closed, and the child is about well. I did not see the case any more, but found the child on January 4, 1880, and made a careful examination. I did not find any impairment of the functions at either hip or sacro-iliac joint. There was no atrophy, save about the cicatrices which marked the sacral region. The mother reported that no relapse had ever occurred.

Case XXXIX.—*Cold abscess over sacrum—coming on during convalescence from scarlatina; recovery at end of eight months.*—Horatio R., aged three years, came under treatment in the Out-door Department May 5, 1879. There was a soft, fluctuating tumor over the left sacro-iliac junction, which had first made its appearance in the latter part of January, as the child was convalescing from scarlatina. The spine and hip seemed free from encroachment. *May 14th.*—The skin is a little red over the tumor, and the child walks quite lame. Hot fomentations ordered; cod-liver oil and iron for medication. *19th.*—The mother called to report that the abscess had opened spontaneously, and was discharging freely *24th.*—There is an ulcer over the left sacro-iliac junction, ¾ × ½ inch in size, and a quarter of an inch in depth, filled with healthy granulations. There has been a little febrile reaction. A slight discharge continued until September, the ulcer diminishing to a small fistulous opening, and then the parts healed. The child walked lame during the summer, but all lameness disappeared when the sinus closed. *January 6, 1880.*—There is no infiltration about the nates on either side, no atrophy of either limb, the functions of the joint are perfect, and the child walks with perfect ease. No bony enlargement can be felt; no spiculæ of bone were ever exfoliated. The case is cured and discharged.

PERIARTHRITIS OF THE VERTEBRAL ARTICULATIONS.

One can scarcely speak of a spinal periarthritis. Yet, as spinal caries is usually described among joint diseases, and as the pathology of bone diseases about the spinal articulations is essentially the same as that of bone disease about other articulations, I have thought it expedient for the sake of analogy to report two cases of abscess over the spinal column, the more especially as one was a cold abscess, and caused an error in diagnosis. The other was acute, and the only points of interest are associated with its inception.

Case XXV.—*Cold abscess over first and second lumbar vertebræ; diagnosis of caries made, and a brace applied.*—A male, aged thirteen, came under my observation in the Out-door Department of the hospital, August 2, 1877. He was at that time wearing a spinal brace, which had been applied in June for supposed caries of the lumbar vertebræ. The diagnosis had been made by one who had seen many cases of spinal disease. The boy was in fair health, and did not know of any cause for the trouble from which he sought relief. There was a little fullness over the spinous processes of the first and second lumbar vertebræ in June, so I was informed; there was stiffness without a history of fall or strain. On the 2d of August, however, the fullness was circumscribed in a measure, and there was possibly a little fluctuation. I could detect no evidence of bone disease on a careful examination, and made a diagnosis of cold abscess, possibly connected with the periosteum. The brace was removed, and it was decided to keep the case under observation. *October 2d.*—Spontaneous opening this morning, with discharge of a cheesy purulent matter. With a probe no eroded bone could be discovered. Poultice ordered, and on October 16th the sac had refilled, though now the abscess walls were collapsed. Has been taking iron in some form from the beginning. *23d.*—About relieved; the discharge is insignificant, and the diagnosis is fully confirmed. I did not see the boy again until December 29, 1879. I then found him and made a thorough examination. Only the cicatrix remained. No other sign of former disease; none of present disease. Has not had any relapse.

Case XLIV.—*Acute dorsal cellulitis; cure at end of two months.*—A female child, aged two and a half years, was brought to the Out-door Department, November 21, 1879, with a temperature of 103·25°, very tender on being handled, and with a fullness without fluctuation over the dorsal spine, the skin over which was a little red and painful to the touch. The child walked stiffly, favoring the right side. Concussion elicited no tenderness, nor did lateral motion; no angular prominence of the spine could be detected. The child was perfectly well six days before. At that time the mother observed a little swelling and tenderness about the *face*, and the child began to walk awkwardly; four days later—yesterday—the *back* first began to swell. An evaporating lotion was prescribed, and the muriated tincture of iron, in glycerine, was ordered for internal use. *November 26th.*—Abscess forming. *29th.*—Incision this morning, and about three ounces of pus evacuated. The case did well after this, and on December 3d the sac was empty, and the wound had healed; no deformity, no lameness. *January 6, 1880.*—Sac refilling. *21st.*—After last date the wound reopened spontaneously; a little discharge followed, the parts healed, and to-day the patient is reported cured. Has been seen once in February, and no sign of relapse has been observed.

The *symptoms* of periarthritis depend in a measure upon the joint about which the inflammation occurs. We have an acute invasion nearly always; there are sharp pain, increased heat of the skin, an infiltration, if the disease be of recent date, a fluctuating tumor undergoing suppuration at a later stage. Still, we must remember that there is, as a rule, no chronicity.

In analyzing the forty-seven cases, it was found that their average duration, from the initial pain to the complete restoration of the functions of the limb, was between five and six months. There were ten completed within one month's time, and thirty within four months. There was one which lasted three years, yet joint disease was easily excluded. The deformities produced are muscular, and can in nearly every instance be accounted for by the locality of the abscess. Thirty-five went on to suppuration, and in twelve resolution took place. Eighteen of the twenty hip cases suppurated. Of the knee, eight of the sixteen—or one half only—terminated in this manner; four of the six about the ankle, the three near the sacro-iliac joint, and the two over the spine ended in suppuration.

As regards the frequency with which phlegmonous inflammation occurs around the different joints, my analysis shows: of the forty-seven, twenty for the hip, sixteen for the knee, six for the ankle, three for the sacro-iliac, and two for the spine.

As to the ages of the patients, there were three under one year, twenty-six under four years, only two over seventeen years. The oldest was fifty-seven years of age.

In searching for an exciting cause, seven were traced to a fall, two to a strain, two to vaccination, one to rubeola, one to hereditary syphilis, and one to thrombosis; in thirty-three no cause was found. Twenty-three were apparently in good health when attacked with the disease, nineteen were in poor health, and four were in a moderate condition of health. There were twenty-eight males and nineteen females.

Diagnosis.—To differentiate this from articular osteitis or synovial diseases, we have to remember that *bone disease, especially of a tuberculous nature, is essentially chronic;* that the pain and lameness always precede the infiltration of the soft parts. Just here we recognize the importance of a clear history, and we must rely on this if we hope to make a diagnosis. We can not rely on the deformity or on the locality of the abscess. In primary synovial disease the effusion within the capsule produces deformities that are characteristic. In synovitis of the hip, for instance, with much effusion, we have rotation outward and semi-flexion; yet we so rarely see a case of primary synovitis of the hip with much effusion that this affection will seldom present for differentiation. In synovitis of the knee we have semi-flexion, with a little genu-valgum when the capsule is distended. In one case that I have reported (Case XLVII.), while the fullness about the patella presented the appearance of that from synovial disease, there was one feature by which alone we were enabled to exclude the latter; *the limb was straight, and flexion was resisted.* In making differential diagnoses in joint diseases one must familiarize himself with the anatomy of the parts, and with the functions of the muscles. With this knowledge at command, a careful examination is necessary, and an opportunity of repeating this if obscurity presents.

The *prognosis* is good, not only as regards life, but as regards restoration of the joint to its normal condition. In only one case that I have analyzed did death occur, and this was before Listerism had been fairly introduced into the city. With proper antiseptic precautions, if the abscess be large and burrow extensively, we need apprehend no danger. The duration has already been given when speaking of the symptoms.

The treatment is that which would be adopted in phlegmonous inflammation irrespective of locality. There is no occasion for apparatus to correct deformity: that, being muscular, and depending on the presence of the areolar infiltration, will right itself when this infiltration has disappeared.

ON PERSISTENT PRIAPISM, NOT CONNECTED WITH LESION OF THE CENTRAL NERVOUS SYSTEM.

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Cases of long-continued priapism from injury to the spinal cord are of frequent occurrence, but such cases not dependent upon lesion of this kind are sufficiently uncommon to make the following case an interesting one:

The patient, A. W., an Englishman, twenty-eight years old, was a coachman by occupation. He was of temperate habits, and had never had venereal disease. He was admitted to the New York Hospital April 15, 1879. Five years prior to admission he had suffered from chills and fever. Two months before admission his legs became swollen, and he thinks he passed water more frequently than usual. During this time he had frequent attacks of chills and fever, and suffered often from epistaxis. Four weeks before he presented himself at the hospital he felt a slight pain in the perinæum, together with some tenderness and irritation in the penis before going out for a drive. Immediately afterward, while driving, his penis became erect, and it continued so up to the time of his admission. This erection was not accompanied by sexual desire or by loss of seminal fluid at any time.

On admission it was found that whenever he attempted to sit down he suffered severe pain in the perinæum, but that if he lay quietly upon his back he was not seriously incommoded. The erection was confined to the corpora cavernosa, and he was able to urinate without difficulty. His general condition was poor, his feet were œdematous, and his urine contained a small quantity of albumen and hyaline casts. His spleen was greatly enlarged. Its vertical measurement in the axillary line was twenty centimetres, in the mammary line twenty-seven, and in the median line nineteen. It extended beyond the median line of the body. The lymphatic glands in the groins and neck and elsewhere were much enlarged, and he was very anæmic. He was treated by quinine and subsequently cinchonidia internally, and by ergot subcutaneously over the region of the spleen. His penis was protected from contact with the bed-clothes, and no local treatment was resorted to. During the month following his admission his temperature frequently rose in the evening, but never above 101° F., and it always fell again to 99° in the morning. The rigidity of the penis gradually decreased after his admission until at the end of a month the organ was of the usual size, and he was able to get up and be about. It had then been erect for six weeks, and semi-erect for rather more than two weeks. About this time his blood was examined microscopically, and it was found that the white cells were far in excess of their normal number. Repeated examinations revealed the fact that they were present in different specimens in the proportion of one white cell to six, five, four, three, and two red ones, instead of one to three hundred and fifty or five hundred, as is the usual relation. He had frequent attacks of epistaxis at this time. He was put upon the use of iron, and his general health improved slightly. During the next few weeks his spleen remained of the same size, and he had several imperfect erections. Subsequently iodide of potassium was given internally, and tincture of iodine used externally over the spleen. His lymphatic glands increased slightly in size. By the end of July—nearly three months after admission—he was discharged at his own request, as he wished to return to his home in the country.

Six months subsequently he came to see me. The size of his spleen and lymphatic glands was about the same as when he was discharged from the hospital, the disproportion between the red and white cells in his blood remained the same, there was still some œdema of the feet, and he complained of shortness of breath even upon slight exertion. He had had no sexual desire, and had not attempted copulation.

The question as to what was the cause of the priapism in this case, and what, if any, its connection with leucocythæmia, has led me to search medical literature generally for similar cases. In Mosler's monograph on Leucocythæmia no mention is made of this as a complication. In the second edition of his article in von Ziemssen's "Cyclopædia" he refers briefly to Longuet's case, which I quote below. I have got together notes of thirty-two cases of long-continued priapism not dependent upon injury to the nervous centers, of which cases five, besides my own, were associated with leucocythæmia. These latter cases I give below:

Case I. is given in "Schmidt's Jahrbücher," vol. cxxxi., 1866, p. 173, by Klemme, of Cassel. The patient was a man in comfortable circumstances, twenty-four years of age. In early life he had always been ailing, had suffered much from headache, dyspepsia, and rheumatism, and had had small-pox. He had never had intermittent fever. After two injuries, by which he lost much blood, an enlargement of the spleen was noticed, and soon an effusion of blood into one knee-joint. This latter was removed by puncture, but soon recurred. After this he suffered from hæmorrhage into the connective tissue in several places, and then the inguinal glands became enlarged. His spleen continued to increase in size, and soon his liver also. At this stage of his trouble he was suddenly awakened at night by a severe burning pain in the urethra, accompanied by a rigid erection of the penis and strangury. He was able to urinate only in the knee-elbow posture. He had repeated hæmorrhage from the nose and from the anus, and suffered much pain in the bulbous portion of the urethra. Blood obtained by puncture from the finger was found to contain one white cell to every three red ones. Thus he continued for rather more than six weeks, when the size of the penis gradually subsided, and the pain became less severe. The erection was never accompanied by pleasurable sensations or by pollution. His health gradually improved under tonic treatment.

Case II. is reported by Longuet in the "Progrès Médical," and given briefly in the "Allg. med. Central-Zeitung" for 1876. The patient was a soldier, twenty-nine years of age, previously in good health. After a short attack of dyspepsia he began suddenly to suffer from priapism. He was very anæmic, and his spleen was much enlarged, as were also his lymphatic glands. The white blood-cells bore the relation to the red ones of one to two. The erection lasted three weeks, and gradually subsided after he had lost much blood from the nose and anus.

Case III. is reported by Neidhart, in the "Allg. med. Central-Zeitung," No. 55, 1876. The patient was a young man, eighteen years of age, who had suffered much from intermittent fever. His spleen was much enlarged, and he had the other indications of leucocythæmia. The erection occurred several times in the course of his disease, and after lasting each time from two to three weeks, gradually subsided entirely. There are, unfortunately, no further details of this case.

Case IV. is reported by Matthias, in the "Allg. med. Central-Zeitung," 1876, Nos. 97 and 98. The patient was a merchant, twenty-seven years of age, who had suffered several months from anæmia, which had come on without assignable cause. He was suddenly attacked at night with severe pain in the penis, accompanied by priapism. This continued, without intermission, for five weeks and a half, and was accompanied by insomnia. A cure followed the use of iodide of potassium, which was continued two weeks. Power of erection of the penis never returned. His spleen attained a large size, as did also the liver, and he grew weaker and weaker, and finally died exhausted, nine months after the beginning of the priapism.

The account of the next case is the most recent allusion to the subject that I find in medical literature. It is recorded in the "Berliner klinische Wochenschrift" for March 17, 1879, by Dr. Salzer, of Worms. Dr. Salzer discusses the subject at some length, and gives extracts from reports of seven other cases of long-continued priapism, not all accompanied, however, by leucocythæmia.

Case V.—The duration of the erection was forty-six days. The patient was a saddler by trade, forty-six years of age, the father of seven children. He had always been healthy, with the exception of an attack of intermittent fever fifteen years before. He had never indulged in sexual intercourse to excess, and had never had venereal disease. He had had two attacks in the two weeks preceding the one here described, each of which had subsided after some hours' treatment by cold applications. All three attacks were accompanied by severe pain and marked tenderness, especially in the root of the penis. We are not told whether or not these erections were confined to the corpora cavernosa. The patient was able to urinate only in the knee-elbow posture. The urine was normal. The spleen was enormously enlarged. He was treated by leeches, narcotic inunctions, sitz-baths, cold and warm applications, chloral hydrate, bromide of potassium, castor-oil, large doses of quinine, and chloroform-narcosis. He resorted to coitus, which was difficult and painful, but successfully accomplished, without any relief. Finally, his pain was relieved by the continuous use of narcotic poultices, containing a free admixture of camphor. After forty-six days the erection gradually subsided. The patient became cachectic, œdema of the feet was observed, the spleen increased in size, ascites developed, his liver became large, he began to suffer from cough and repeated hæmoptysis, and he died about a year after the beginning of the priapism. After the subsidence of the erection, he lost all power to erect his penis, and with it all desire for sexual intercourse. Unfortunately, his blood was not examined microscopically, nor was it possible to hold an autopsy upon his body; but the probability, from the history of the case, is very strong that the patient was suffering from leucocythæmia.

It was in 1845 that Virchow and Bennett published their cases of leucocythæmia, which led to the memorable controversy between them in regard to priority of discovery. There are many publications on enlargement of the spleen, etc., of much older date, but it was not until 1845 that the world had any very definite knowledge of the new disease. Now, of my twenty-four other cases, seven were recorded prior to 1845, one in that year, and several a few years later. Some of these patients are described as not being in good health, although they were not known to have any organic affection. Many suffered from hæmorrhages, and may perhaps have had leucocythæmia. At all events, it is obvious that there is some relation between the two conditions.

It will be of interest for us to inquire into the various theories advanced, by those who have recorded these cases, to account for them. Klemme considers that there was doubtless a connection between the erection in his case and hæmorrhages which occurred in various localities, and that the prolonged erection was due to hæmorrhage into the tissue of the corpora cavernosa.

Unfortunately, the journal in which those of the other four cases were reported, the "Allgemeine med. Cent.-Zeitung," is not accessible to me, and I must draw upon Dr. Salzer for my information regarding them. His own case, together with an excellent *résumé* of these others, is published in the "Berliner klinische Wochenschrift," as I have already stated.

Longuet considers that the change which takes place in the blood in leucocythæmia is partly a morphological and partly a chemical one; and that the smaller vessels of the penis are not improbably occluded by thrombi, which are composed of masses of white blood-cells. He also considers that the possibility of hæmorrhage into the penis is not to be disregarded.

Neidhart and Matthias agree in substance with this view, but Neidhart expresses the opinion that the possibility of accounting for the priapism by nervous irritation should be taken into account.

Salzer admits the possibility of these explanations in the other cases, but claims that in his patient they are insufficient to account for the condition. The long-continued priapism in his case was preceded at intervals of several days by erections, which lasted several hours at a time. He claims that, if these attacks had been due to hæmorrhage into the corpora cavernosa, they would certainly have lasted longer than a few hours—a conclusion which it would be unreasonable to deny. He then alludes to Eckhard's experiments upon dogs ("Beiträge zur Anat. und Physiol.," III. B., p. 123), which showed that irritation of the nervi erigentes penis, which are distributed in the corpora cavernosa, was followed by increased rapidity in the blood-current, and, as has since been proven (Lovèn, "Bericht der sachs. Gesellsch.," 1866), by a swelling of the smaller arterial trunks. Thus the physiological erection is caused by a physiological irritation of the nervi erigentes, and from this he reasons that the priapism in his case was due to an abnormal and long-continued condition of irritation of the nervi erigentes. He considers that this irritation may have been caused either by anatomical changes in the nerves themselves, or by pressure from enlarged lymphatic glands.

Now, if this were the case, what should cause the subsidence of the erection as long as the nervous irritation was continued? Why should the effects of the "anatomical changes" or of the "pressure from enlarged lymphatic glands" disappear, and the erection subside, while the cause of those hypothetical conditions—the leucocythæmia—remained operative? or, even if the erection is due at its commencement to causes of this kind, may not its long continuance be due to hæmorrhage into the tissue of the corpora cavernosa? Moreover, if it were due to an irritation of these nerves, why should all sexual desire be abolished, as is usually the case?

The hæmorrhage which occurred in other parts of the body in several of these patients would warrant us in believing that hæmorrhage occurred also into the penis, and this seems to me the simplest explanation of the condition. The communication between the two corpora cavernosa, through the septum pectiniforme, is so intimate that hæmorrhage into either corpus cavernosum would naturally be followed by a retarded return of blood from them both. The question as to the cause of these hæmorrhages can not be discussed in this paper. Whether they be due to prolonged and excessive irritation of the nervi erigentes or to emboli of white blood-cells, as seen in the meningeal arteries by Bastian in leucocythæmia, is not material.

The following case is evidence that injury to the corpora cavernosa is sufficient to cause prolonged priapism. There is no positive evidence that this injury was followed by hæmorrhage into the tissues, but the inference seems fair that such was the case. It may be said that in most of the recorded cases we are told that the corpus spongiosum was not in a condition of erection; and this fact also seems to me to agree with the solution of the problem that I have suggested in common with others.

"The Lancet" for June 7, 1873, contains this case, recorded by Mr. Johnson Smith: The patient was a seaman, forty-six years of age, married, and the father of eight children. His health had always been good, and for eight years he had been a temperate man. He was injured by falling from aloft a distance of eighteen feet to the deck of his vessel. In this fall his perinæum and the under part of his penis were bruised. There was no subsequent bleeding from the urethra. On the day after the accident, the penis became erect and very painful, its dorsum being in contact with the hypogastrium, and any attempt to depress the organ causing severe pain. There was no difficulty in passing water, and there was no injury to the spinal column. He was given bromide of potassium, and subsequently an ointment, consisting of equal parts of extract of belladonna and mercurial ointment, was used. This ointment seemed to relieve his pain somewhat, and at the end of a month the erection began to subside. Six weeks from the receipt of the injury, he was discharged from the hospital cured.

To give even a brief epitome of all the recorded cases of priapism would extend the limits of this paper beyond what is reasonable. As regards the treatment of the condition, the following list will give an idea of the various expedients that have been resorted to: Leeches, hot fomentations, cathartics, hip-baths, venesection, tartar emetic, cooling lotions, conium, hyoscyamus, opium, tobacco enemata, mercurial ointment, camphor, belladonna, chloroform-narcosis, bromide of potassium, chloral hydrate, calomel, ipecac, sulphate of zinc, tincture of iron, iodide of potassium, veratrum viride, ergot, quinine, corrosive sublimate, assafœtida, and blisters to the perinæum and to the neck. In a few cases, the erection subsided after venesection had been carried to the point of producing syncope. Sexual intercourse as a remedy has been resorted to in vain. It is usually painful, and frequently impossible. Desire is usually abolished.

There have been several cases in which free incisions, made into one or both of the corpora cavernosa, were followed by a subsidence of the erection. Some of these have been followed by permanent impotence, but this result often follows in cases that have been treated medically. In one of the cases treated surgically, which was reported by Mr. Birkett, in the "Lancet" for February 16, 1867, the incisions were followed by tedious suppuration. I give the case to show the method of procedure :

> The patient was a laborer, forty-four years of age. He was admitted to Guy's Hospital on January 14, 1865, and stated on admission that his penis had been erect without intermission during the previous ten days. The erection began with sexual intercourse. During the first week he felt passionate venereal desires, but they had subsided on admission. The cavernous bodies alone were affected. He suffered great pain in the part, which was increased by the least attempt at pressure or depression of the organ. He appeared cachectic and much out of health, though there was no evidence of disease in any other organ. Two days after admission, two incisions were made with a bistoury into each corpus cavernosum, and a quantity of "dark, thick, blood-like fluid" was let out. This was followed by œdema of the glans, but by no relief of the priapism, though the pain was less intense. After this, several more openings were made on each side, and after the lapse of a month the erection subsided, but several of the openings began to suppurate, and continued doing so during several months, so that the man was not able to leave the hospital for five months. The erection lasted a month in all. We are not told whether or not the patient was subsequently impotent.

Mr. Birkett also mentions a case which he had seen in St. Mary's Hospital, in which after persistence of the symptoms for a month relief was obtained by an incision, made by Mr. Haynes Walton, into the corpus cavernosum of one side. He does not inform us as to the further progress of the case.

The following seem to be the most important facts with regard to priapism :

1. It is to be regarded as an occasional symptom of leucocythæmia.

2. It may come on without any assignable cause in a patient apparently in perfect health, though it usually attacks anæmic persons. It sometimes follows sexual intercourse, though this is to be regarded as exceptional.

3. It may last from a few days to two months, and has lasted a longer time, though rarely.

4. It is extremely painful, causing insomnia, nervous exhaustion, and general physical prostration.

5. It has occasionally yielded to profuse blood-letting. This procedure is not to be recommended, except in robust subjects. Free incisions into the corpora cavernosa have occasionally caused its subsidence, but they are to be regarded as unsafe on account of the prolonged suppuration which has followed them. Medical treatment has proved entirely useless as far as the cure of the condition is concerned. Local applications containing camphor and other soothing ingredients have diminished the pain.

6. The prognosis is not good, both on account of the cachexia with which it is commonly accompanied, and on account of the fact that it is frequently followed by impotence.

7. The corpus spongiosum is usually not affected.*

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* After this article was written I read in the "Lancet," for January 31 of this year, that Dr. Carpenter, in the course of a paper upon the treatment of leucocythæmia, which he read before the Medical Society of London, mentioned a case of leucocythæmia in which a troublesome symptom had been recurring priapism. The report gives no further details of the case. This makes, then, the seventh case in which priapism has occurred in leucocythæmia.

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SULPHIDE OF CALCIUM IN THE TREATMENT OF SUPPURATING BUBOES.

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My attention was first called to the value of the sulphide of calcium in arresting processes of suppuration through an article in "The Lancet" of February 21, 1874, by Sydney Ringer, M. D. Dr. Ringer claimed that, when the product of suppuration in scrofulous sores was thin and ichorous, the administration of small doses of the sulphide of potassium or of calcium promptly changed the purulent fluid to one of a more healthy character, and that the healing of the sore was promoted. He also claimed that the formation of boils and abscesses was prevented by a timely administration of small doses of the sulphides, and that, when suppuration had already occurred in such cases, the suppurative process was quickly arrested through the influence of these remedies. Opportunity for a practical test of these claims soon occurred, and resulted in my own personal conviction of their entire correctness, and I have now for the last five years habitually prescribed the sulphide of calcium in cases of threatened suppuration in phlegmonous swellings from various causes, and, as a rule, with very gratifying results. The manner of its use was practically the same as advised by Dr. Ringer, viz., $\frac{1}{12}$ grain of the sulphide of calcium every two hours, or $\frac{1}{20}$ grain every hour, during the day and up to the time of retiring. Especially have I found small doses of the sulphide of calcium useful in arresting the progress of furuncular swellings and abscesses, and in preventing their occurrence when threatening. On the other hand, I have repeatedly tested the influence of this drug upon the suppurative processes in mucous membranes, as in gonorrhœa, gleet, leucorrhœa, etc., without being able to discover that it influenced or modified the suppurative process in such cases in the least degree.

Among the cases in my private practice where prompt arrest of suppuration was quickly followed by absorption of pus already formed and resolution of the tumor, and apparently from the use of the sulphide of calcium, were several inguinal buboes associated with chancroid. The simple fact that resolution occurred in these cases was (in accordance with the popular teaching) accepted as proof that the buboes were of sympathetic and not of chancroidal origin.

Authorities have long taught that, once the virus from a chancroid has been carried along a lymphatic vessel and deposited in the adjacent lymphatic gland, inflammation is at once set up in the substance of the gland. This, it is claimed, goes steadily on in spite of all and any treatment until an abscess is formed. This must, sooner or later, through advance of the suppurative agency or by surgical interference, result in an open ulcer, the pus of which will possess the same vicious character as the chancroid from which it was derived. This variety of bubo is known as the virulent or chancroidal bubo. The suppuration of such buboes has been considered *inevitable*, and all buboes not pursuing this course have been set down as not of true chancroidal but of simple or sympathetic origin. Inflammatory lymphatic enlargements associated with chancroid are very naturally dreaded as most likely to prove by results to be of chancroidal origin, and usually, after a few feeble attempts at treatment with a view to their resolution, glands so affected are encouraged to suppurate, and prompt incision and evacuation of pus are advised as soon as the slightest true fluctuation is recognized. If suppuration is indeed inevitable, undoubtedly it is wise to encourage it, to evacuate the virulent product at the earliest moment, and thus afford access for efficient treatment for the destruction of this new-formed chancroid. For this reason I had been an earnest advocate for early incision into suppurating buboes associated with chancroid. My experience in the few cases above alluded to, however, made me incline to the belief that a thorough and extended trial of the calcium sulphide in cases of inflammatory buboes associated with chancroid might give such results as to make its use imperative in every such case.

In order to gain further light on this important matter, a systematic use of the calcium sulphide was made, in my service at Charity Hospital, in eighteen consecutive cases of inflammatory bubo occurring with, or as the immediate sequel of, well-pronounced chancroid. All the facts considered of importance were noted by myself and under my direction by Dr. Johnson, my House Surgeon, and carefully tabulated as shown on the opposite page.

Thus it will be seen that, out of eighteen cases of inflammatory bubo presenting the rational evidences of chancroidal origin, and treated systematically by the use of small doses of the sulphide of calcium, resolution occurred in fifteen, and that in only three cases was incision ultimately required.

If we apply to these cases the usual rule that chancroidal buboes always eventuate in chancroidal abscesses, always suppurate and require evacuation by natural means or surgical procedure, then we must hold that only three out of fifteen cases of inflammatory buboes associated with chancroid were the result of transference of the suppurative process from the chancroid to the adjacent lymphatic gland. It is just possible, however, that the influence of the sulphide of calcium may, in arresting suppuration, extend to the true chancroidal bubo. The apparent successful use of this drug in the series of cases herewith presented at least suggests and invites a trial of its efficacy in all instances of threatened glandular suppuration, whether associated with chancroid or of purely sympathetic origin.

No.	Date		Character, Size, and Number of Sores.	Date of Implication of Glands.	Size of Glands implicated.	Condition as to		Date of administration of Calcium Sulphide.	Size of Dose and Frequency.	Tinct. of Iodine and Pressure.	Results.
	Of Connection.	Of Appearance of Sore.				Sensibility.	Fluctuation.				
1	July 17.	Aug. 1.	Size of finger-nail; red; painful; one.	Oct. 1.	Half hen's egg; L. I.	Tender.	None.	Oct. 15.	$\frac{1}{12}$ Gr. every 2 hours.	Both.	Oct. 29; cured; discharged.
2	Not known.	Not known.	Small; deep; sloughing; one.	Oct. 1.	Hickory-nut; R. F.	Tender.	Spot as large as a cent.	Oct. 25.	"	"	Nov. 25; cured; discharged.
3	Sept. 30.	Oct. 20.	Size of a dime; red base; one.	Oct. 3.	Hen's egg; L. I.	Very tender.	None.	Oct. 26.	"	"	Nov. 8; imp'd; disc.; s. g. c.
4	Not known.	Oct. 24.	Size of a dime; hard; gray; 3, then 1.	Nov. 4.	Butternut; R. I.	Tender.	None.	Nov. 7.	"	"	Resolution. Nov. 21; cured; discharged.
5	Not known.	Sept. 1.	Tender; gray; pea; two.	Sept. 20.	Tablespoon; L. I.	Very tender.	None; hard.	Nov. 2.	"	"	Nov. 24; cured; discharged.
6	Sept. 4 and 6.	Sept. 11.	Red; small; one.	Oct. 4.	Engl. walnut; L. I.	Tender.	Suspected.	Oct. 24.	"	"	Nov. 21; cured; discharged.
7	Aug.	Oct. 15.	Painful; purulent disch.; white pimples; one.	Oct. 31.	Engl. walnut; L. I.	Tender.	None.	Nov. 10.	"	"	Dec. 1; cured; discharged.
8	Aug. 26.	Sept. 13.	Gray base; finger-nail; two cicatrices on prepuce.	Oct. 28. Oct. 30.	R. I.; walnut. S. I.; walnut.	Tender.	None.	Oct. 30.	"	"	Dec. 3; cured; discharged.
9	Indefinite.	Sept. 15.	Phymosis; purulent disch.; indurated spot felt.	Sept. 30.	R. I.; Engl. walnut. L. I.; Engl. walnut.	Tender.	None.	Nov. 10.	"	"	Dec. 4; imp'd; discharged.
10	Oct. 10.	Oct. 20.	Large; red sore; pen.; two.	Oct. 25.	R. I.; Engl. walnut.	Tender.	None.	Nov. 2.	"	"	Dec. 12; cured; discharged.
11	Unknown.	Unknown.	Small; beneath prepuce; one.	Nov. 6.	L. I.; hen's egg.	Very tender.	Size of quarter dollar.	Nov. 10.	"	"	Opened. Dec. 12; cured; discharged.
12	July 4.	July 11.	Successive crops; small and numerous.	Oct. 29.	L. I.; Engl. walnut. R. I.; pigeon's egg.	Very tender.	Right one, quart'r of a dollar; left, of dime.	Nov. 8.	"	"	Dec. 15; cured; discharged.
13	Oct. 8.	Oct. 17.	Under prepuce; unknown.	Nov. 14.	R. I.; hazelnut.	Tender.	Marked, but appearing slowly.	Nov. 14.	"	"	Opened. Dec. 19; cured; discharged.
14	Nov. 5.	Nov. 19.	Small; deep; single.	Nov. 26.	L. I.; Engl. walnut.	Red, very tender.	Yes.	Dec. 4.	"	"	Opened. Dec. 26; cured; discharged.
15	Sept. 20.	Sept. 26.	Gonorrhœa; small sore on glans penis.	Nov. 6.	L. I.; walnut.	Tender, red.	None.	Dec. 4.	"	"	Dec. 26; cured; discharged.
16	Oct. 14.	Oct. 27.	Dorsum of penis: one; corona glandis: few; small.	Dec. 6.	L. I.; hazelnut.	Tender.	None.	Dec. 14.	"	"	Dec. 26; cured; discharged.
17	Nov. 30.	Dec. 9.	Behind corona glandis: small; one.	Dec. 11. Dec. 18.	R. I.; walnut. Rt. of penis: small.	Tender.	None.	Dec. 16.	"	"	Dec. 29; cured; discharged.
18	Nov. 4.	Nov. 20.	Hard; small; single; three later.	Nov. 20.	R. I.; walnut.	Tender.	None.	Dec. 30.	"	"	Jan. 11, 1880; cured; disch.

REMARKS ON THE TREATMENT OF COLD ABSCESSES, ESPECIALLY IN CONNECTION WITH POTT'S DISEASE.*

By F. LANGE, M. D.

Mr. President: At one of the recent meetings of this society, when the question was discussed whether all cold abscesses, without discrimination, ought to be opened, now that the antiseptic method would seem to present a way of doing it without incurring the dangers of former days, I desired to state that danger might still exist in a certain small proportion of cases. This view was founded upon my experience in several cases in which, after the free opening of cold abscesses, the patients had succumbed in spite of every possible care; and I am under the impression that, under certain conditions, the origin either of general tuberculosis or of albuminuria has been favored by this treatment. So far as I remember, in some of those cases the autopsy showed extensive destruction at the original seat of the disease (I now refer, for the most part, to cases of Pott's disease), which, to be sure, had in most instances already existed before the abscesses were opened, and might, therefore, have proved fatal, even had the abscesses remained untouched. On the other hand, however, there gradually ensued a deterioration of the general condition, evidently dependent upon the opening of the abscesses, and the patients died sooner than might otherwise have been the case.

I then called your attention to the fact that, by proper attention to the original disease and to the patient's general condition, we were able to procure the complete absorption of cold abscesses in a comparatively large percentage of cases. I believe the speedy and absolute healing of cold abscesses, after free opening, to be possible only when purulent matter is no longer formed at the primary seat of disease; and I think that most of the brilliant results reported after opening cold abscesses under Listerism have been cases in which the original disease had essentially come to an end. The latter may have existed for a year, or for several years, before the abscess became accessible to palpation. Can we expect an abscess to heal speedily—by so-called primary union—while behind it an active and widespread osteitic process is constantly producing new matter? And, if experience shows that in such cases (perhaps because of our being unable, on account of its inaccessibility, to attack the fundamental disease by efficient surgical measures) danger attends active interference, we ought to take into account the fact that nature is capable of removing cold abscesses, and that we have means at our disposal to support her in this direction. I think that in all cases, except those in which the abscess itself is the direct cause of trouble and danger, the treatment should be directed toward the cure of the primary disease; and that, in all cases where we are unable to remove the diseased tissues from which the abscess takes its origin, the abscess itself should remain untouched until the original disease is essentially ended.

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* Read before the New York Surgical Society.

To decide as to the latter point is, of course, difficult, and is possible only after observation of a larger number of cases than I have had at my disposal. I have, however, enjoyed the privilege of being for several years in the position of an assistant to a prominent surgeon, who, in the treatment of chronic osteitic processes, adheres to the most conservative principles, in a country abounding in scrofulous and tubercular affections of the joints and bones; and, in numerous instances, I have seen excellent results from following the directions of my honored chief, Professor Esmarch, of Kiel. I do not hesitate to give absolute preference to that form of treatment which enables us to attain the same or even better results without cutting operations than with them. I do not want to enter into the question, how far, by free incision and antiseptic after-treatment, a beneficial retroaction can be exerted upon the local osteitic process. At all events, the interesting fact, that even large abscesses can be absorbed, should not be forgotten, and a kind of treatment intended to favor this natural process seems to me worth being subjected to more general trial.

The abscess itself extremely seldom endangers life. Enormous abscesses may be carried for many months by patients of healthy appearance and with only slight discomfort, and every rational treatment ought to proceed from the consideration that the abscess is more a symptom, or rather a consequence, than a disease *per se.*

I said above that, by a proper kind of treatment, we might be able to favor absorption of those abscesses in more numerous cases than is generally believed. It is to me very probable also that spontaneous absorption, without medical aid, is more frequent than is generally believed. There are a good number of cases of Pott's disease with loss of bony substance (as shown by the distortion of the vertebral column), in which the formation of pus never becomes perceptible to us. And, though we know that necrobiosis without suppuration is possible, it still occurs in such an extreme minority of cases that it might be justifiable, in the majority of the cases of Pott's disease mentioned, to suppose that suppuration had existed to a certain amount, with subsequent absorption or encapsulation of the matter formed.

In presenting these three little patients, who have all been suffering from Pott's disease in the lower part of the vertebral column, with consequent abscesses, I wish, first, to make some remarks about the treatment in general. Above all, it is constitutional. Fresh air, day and night, by always keeping the windows open, or by sending the patients out-doors so soon as the local process allows of it, is the first requirement, and this is all the more necessary as the disease mostly occurs among the lower, ill-housed class of people. Anti-scrofulous diet is ordered, care being had that every meal shall be taken at its proper time, and that no dainties are given between meals. Internally, small quantities of iron, together with carbonate and phosphate of lime, are given with the meals, three times a day; during the winter cod-liver oil is directed, either alone or with sirup of the iodide of iron. In point of fact, attention to these patients' general condition is the most important feature of the treatment, and an energetic and intelligent mother helps not a little toward recovery.

As for the local treatment, I think that everybody who is familiar with the application of the plaster of Paris, after Dr.

Sayre's method, will make use of it; and these three patients have all been so treated. The many advantages of the method have been widely discussed, and are acknowledged by various and most competent observers. In my cases, where the expense of the suspension-apparatus has been too great for the parents to bear, I have applied dressings that answered every purpose in the following manner: I lay the child, face downward, upon two strips of bandage stretched as tightly as possible over the backs of two chairs (in my office I make use of the arms of a surgical chair). Two persons seated astride the chairs make the extension—one of them taking hold of the shoulders, the other grasping the region of the trochanters. The two strips support the child, and are included in the plaster-of-Paris jacket, being cut off when the latter has become dry. The strips ought to lie under the lateral portions of the thorax, because, if quite in front, the weight of the body causes the chest to assume a flattened shape. In summer, I make all the dressings removable by cutting them in the axillary region, to allow of the necessary cleansing. While reapplying the jacket, the child is always held up by the arms.

The plaster of Paris, however, does not answer all purposes in every stage of the disease. Here and there we meet with cases in which the recumbent posture is indispensable, and in which the activity of the local process requires the application of antiphlogistics. Here the value of the ice-treatment can not be enough emphasized. Ice bags kept upon the diseased part of the vertebral column day and night for weeks, months, even a year and more, favor both the subsidence of the local inflammation and the absorption of cold abscesses already in existence. Their application, to be sure, involves one disadvantage, the patient being confined to bed and not enjoying the benefit of fresh air and out-door exercise, as allowed by the plaster-of-Paris jacket. Of course, we should have recourse to this treatment only where it is indispensable, and both methods will have to supplement each other.

The following three cases of Pott's disease, the only ones of this kind which have occurred in my practice within the last year and a half, have been treated according to the principles above set forth.

Case I.—A. K., a girl, four years and a half old, is the only surviving child of her parents, three others having died soon after birth. The maternal grandmother was affected with tuberculosis. The father seems to have suffered for a long time from rickets during his childhood. Two years ago the child fell down stairs, but no immediate result of the fall was noticed. She got along pretty well for the next year, although the mother noticed that she showed a predilection for being carried. A year ago she complained of pain in the right hip. After some weeks the hip-joint assumed a state of flexion. I saw the patient, one month afterward, in March, 1879, when there was already a well-marked prominence of the lower part of the lumbar vertebral column, and every feature of Pott's disease had become developed.

She was treated with the plaster-of-Paris jacket for two months, but it did not give the expected relief. The thigh became more and more flexed; the child was fretful and slightly feverish; and, after removing the plaster of Paris, a roundish, fluctuating swelling was obvious in the right iliac fossa, reaching almost to Poupart's ligament. The patient was now put to bed, and kept in the prone posture for ten weeks, ice bags being kept applied on either side of the vertebral column, day and night. At first, the abscess seemed to grow larger, but at length it became somewhat softer, the flexion of the thigh gradually disappeared, and since the middle of August the plaster-of-Paris jacket has been worn constantly. The large abscess in the iliac fossa has entirely disappeared, the attitude of the thigh is quite normal, and the child moves about with perfect ease. The dislocation of the vertebral column is not improved.

Case II.—Ch. K., eight years of age. There have been several cases of tuberculosis in the family. The father has had hæmoptysis, and is a miserable-looking man. There are three other children, all presenting a more or less scrofulous appearance, with enlarged tonsils, enlarged submaxillary and cervical lymphatic glands, chronic ozæna, etc. Our patient has suffered for three years past without apparent cause, and has been treated by several physicians for flat-foot, knee-trouble, and hip-joint disease, and even an inguinal hernia was diagnosticated about a year and a half ago, upon the occasion of a cold abscess making its appearance in the left inguinal region. Nine months ago, this abscess had already become so large that it formed a tumor larger than a man's fist below Poupart's ligament, extending upward into the iliac fossa and backward between the adductor muscles to the back of the thigh, below the gluteal fold. The dislocation of the lower portion of the lumbar vertebral column was about the same as it is now.

I have punctured this abscess twice, subsequently washing it out with a two and a half per cent. solution of carbolic acid. It has always formed again very rapidly, and I have seen no marked benefit from the proceeding. The patient has constantly worn his plaster-of-Paris jacket, and for about six months he wore an ice bag upon the abscess. He now moves about with comparative ease, even without the plaster of Paris, and the abscess is getting decidedly smaller. I think that it might now be opened without much risk, and its speedy healing be attained. I prefer, however, to let it alone, and see how far nature will do her work. The value of the plaster-of-Paris jacket in this case can not be over-estimated, for it allowed the patient to move about constantly, and to be in the open air most of the time, and I think it has prevented further distortion of the vertebral column.

Case III.—The patient whom you see here, a girl, nine years of age, I have not seen for about nine months. When she came under my care, fifteen months ago, she had marked Pott's disease in the lumbar vertebral column, and there was a large abscess in the left iliac fossa. The morbid process seemed to be pretty active at that time. After four weeks of the prone posture in bed, with the constant application of ice, a plaster-of-Paris jacket was applied. The parents removed to another part of the city, and I lost sight of the patient. So far as I can learn, she wore the plaster-of-Paris jacket for nine months, at the end of which time she omitted it on account of the summer heat.

You will find now that, except the acute prominence in the vertebral column, there is nothing to betray the former disease. The child looks healthy, and the abscess has disappeared, leaving no trace of its existence. When I first saw the patient, there was also a very marked scoliosis, so that the right short ribs touched the crest of the ilium. I think, however, that this scoliosis was a voluntary one, to avoid pressure upon the abscess in the iliac fossa of the opposite side. It, too, has now wholly disappeared.

PARALYSIS AND ANÆSTHESIA.—A PRELIMINARY NOTE.

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The play of inhibitive nerve-centers in the central system has recently come prominently into notice. Last year I found* that inhibitory fibers coming from the optic thalami ran in the lateral columns of the spinal cord. In conjunction with Dr. R. M. Smith,† I have shown that the lower limit of the decussation of these fibers is about the nib of the calamus scriptorius, and that they descend in the internal half of the middle third of the lateral columns of the spinal cord. In this Journal I have also shown that they partly run in the intermediate columns of the medulla oblongata, and then down the spinal lateral column of the same side, and partly through the anterior pyramid into the lateral column of the opposite side.

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* "Journal of Physiology," Vol. II., No. 1.

† "Journal of Nervous Diseases," 1879.

Recently I have made experiments which prove that inhibitory fibers run in the anterior part of the pons Varolii, and that the point of decussation at the nib of the calamus is only the lowest point. For, if a longitudinal section is made of the cord and medulla at this point, no rhythm of the sphincter ani occurs, which should be the result if the decussation only took place there. In a recent paper * I have shown that cerebral irritations can be transmitted to the anterior extremity of the opposite side, even when a hemisection of the pons is made nearly up to its junction with the cerebral peduncle. This fact confirms the histological observation that certain fibers decussate higher up in the pons. Recent facts observed by Brown-Séquard † seem to prove that a decussation of the inhibitory fibers begins to take place at the entrance of the cerebral peduncles into the pons Varolii.

I wish to show in this paper that the facts observed by Brown-Séquard are quite readily explained by this thalamal inhibition and the decussation of the inhibitory fibers. That inhibitory centers are seated in the optic thalami, the tubercula quadrigemina, the pons, the oblong medulla, and the spinal cord, is proven by recent observations.‡ Brown-Séquard cut transversely the right half of the cerebrum at the level of the striated body in a kitten, when there supervened a very slight paralysis of the opposite side of the body. When he made a second transverse hemisection of the cerebrum, at the level of the tubercula quadrigemina, the crossed paralysis was considerably increased; but when he made a third hemisection, traversing the cerebellum and the upper part of the mesocephalon, then the paralysis ceased on the left side, and voluntary movements returned nearly in the same degree as before the lesion, whilst the extremities on the right side were paralyzed.

* "Detroit Lancet," March, 1880.

† "Archives de Physiologie," 1879.

‡ Ott, "Philadelphia Medical Times," 1878.

This series of facts I explain as follows: the first two lesions call into activity centers of inhibition in the optic thalami, and perhaps in the tubercula quadrigemina, which, through the decussation of their inhibitory fibers, produce a paralysis upon the opposite side; but the moment the section is made behind the centers, and divides in great part the fibers coming from them, then the voluntary movements regain their freedom on the opposite side. The paralysis ensuing on the side of the last section is also explained by centers of inhibition exerting a direct activity on that side. When, in another experiment, he cut transversely the external three fourths of the right half of the mesocephalon immediately back of the middle cerebellar peduncle, then the animal was paralyzed on the right side, and could move the left voluntarily. He then cut the posterior columns of the spinal cord, when there was notable hyperæsthesia of the right posterior extremity, while the left was anæsthetic. When he divided the left half of the spinal cord, then the right foot, which had been hyperæsthetic, became anæsthetic, and the left, which had been anæsthetic, became hyperæsthetic. When he cut the posterior columns—in fact, I fear, the lateral columns, in part—he cut off the inhibition coming from above, and left the foot hyperæsthetic. The anæsthesia after section of the cord I explain by the irritation of sensory nerves calling into activity the optic inhibition above, which expressed its activity upon the opposite side. When he divided the left half of the cord, then the inhibition of the opposite optic thalamus was removed, and the anæsthetic foot became hyperæsthetic. But, by the cord-section, sensory fibers were again irritated, which called into activity the spinal inhibitory centers, which exerted their force through the intact lateral column upon the right side, which side became anæsthetic.

That this hyperæsthesia and paralysis are produced by thalamal inhibition is still further proved by the following experiment by Brown-Séquard: when he cut the entire mass of fibers coming from the anterior pyramid, together with the lateral column of the bulb on the right side, then the hyperæsthesia was on the side of section, because the section was below the inhibitory decussation; but the section, irritating sensory nerves, called into activity the optic thalamus above, which produced anæsthesia upon the opposite side. The paralysis on the side of section was due to the section calling into activity inhibitory centers seated at that place. But when a left spinal hemisection was made, then the left foot became hyperæsthetic, and the right foot, previously hyperæsthetic, became anæsthetic by sensory irritation calling into action the spinal inhibitory centers. He also relates several experiments to show that the excitability of a great part of one half of the encephalon and of the cervical spinal cord of the opposite side is reduced under the influence of a transverse section of a lateral half of the dorso-lumbar segment of the cord, or of the sciatic. These facts are easily explained by the section and sensory irritation calling the thalamus into activity, which inhibits the irritability of the opposite side. It may be objected, that section of the left half of the spinal cord should call the right thalamus into activity by the sensory decussation, but the section includes mainly the fibers already decussated from the opposite side, whilst it includes but a very small number of those originating on the side of section, crossing over to the opposite side, and ascending the cord.

On the same principle I would explain the fact of injections of water on one side relieving pain on the opposite side of the body. All these facts lead to the conclusion that apoplectic effusion into the optic thalamus or its neighborhood causes paralysis and anæsthesia on the opposite side in the case of man, by irritating the centers of inhibition, and restraining movements and the transmission of sensation. If this theory is true, then the treatment of apoplexy would resolve itself into the use of agents which have the power of paralyzing this inhibition, or of exciting antagonistic centers to overcome it. Atropia and bleeding have been found to overcome the inhibition in some cases. Charcot's recent observations upon anæsthesia may perhaps find their elucidation in these views.

INTERNAL URETHROTOMY; FOLLOWED IN ONE CASE BY FATAL SUPPRESSION OF URINE, AND IN ANOTHER BY IMPOTENCE AND ATROPHY OF THE PENIS.

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I PRESENT the two following cases as a contribution to the already voluminous literature of the genito-urinary organs. They may be of special interest, however, at the present time, when successful cases of urethrotomy are so often reported, as possibly tending to render some of the profession more conservative, while others may be still further strengthened in the view that the dangers of the operation are not perhaps fully realized by the profession at large.

CASE I.—DEATH FROM SUPPRESSION OF URINE AFTER INTERNAL URETHROTOMY.—J. D., aged twenty-four years, married, was sent to me in November, 1876, by Dr. M. L. R. He was suffering from retention of urine, and gave the following history: He had had gonorrhœa many times during a residence in South America. There had been a gradual diminution in the size of the stream of urine, and a gleet of years' standing. During the past few years he had had frequent attacks of retention of urine, which had been relieved by hot baths and the occasional use of a catheter (the instrument employed being gradually a smaller and smaller one, till the introduction of any instrument had become impossible). The penis showed extensive induration throughout the entire spongy portion. All instruments were arrested at about one inch from the meatus (excepting a whalebone guide, which was passed into the bladder). Under an anæsthetic the condition was unchanged; the strictures were cartilaginous in type, and effectually resisted all attempts to pass any form of instrument. The bladder was emptied with the aspirator, and on the following day internal urethrotomy, over a whalebone guide, with Gouley's urethrotome, was performed under the influence of an anæsthetic, and a No. 18 (English) sound was passed every other day for ten days, when the patient passed from my care, having been instructed to introduce the instrument once a week till I again saw him.

In January, 1878 (fifteen months after the operation), he again called upon me with retention of urine. He had failed to carry out my instructions as to the passage of the sound, and had been drinking hard at intervals, but was in good physical condition. The penis showed less induration than before, but the anterior stricture had closed, and seemed to be the main seat of obstruction. I passed a small catheter, and evacuated the bladder. The urine revealed no signs of renal disease. He desired another operation at once, and on the following day, assisted by Dr. L. Y. Loring, of the U. S. Army, I operated upon him. He disliked the effect of an anæsthetic, and asked to wait until he felt the need of it, if the pain should prove severe. I found it necessary to divide the first stricture with an Otis urethrotome, as I could not dilate it. I then found the posterior strictures extremely dilatable, and readily passed a No. 18 (English) sound to the bladder. There was little hæmorrhage, and no pain. The patient was given ten grains of quinine and a grain of opium at once, and ordered to take a hot sitz-bath, as a preventive of fever, and to remain in bed. At 7 P. M. (eight hours after the operation) he had a chill, and had passed no urine. A catheter showed the bladder to be empty. Cups were applied over the kidneys, and infusion of digitalis, with citrate of potassium, was given, but with no effect. Subsequently blisters were applied over the kidneys, hot fomentations and all other remedies known for such a condition were tried, but in vain. The patient died in uræmic coma in sixty-seven hours from the time of the operation, having never passed a drop of urine.

An autopsy revealed no signs of false passage, and no severe inflammation in the urinary passages. A section of the kidney showed intense hyperæmia, but the microscope gave no evidence of interstitial nephritis, or of previous renal disease.

From such a history the following questions arise forcibly to myself, and I propound them to the profession: I. *Did the anæsthetic in the first operation decrease the liability to this renal complication?* It must be borne in mind that the general condition of the patient was better when the second operation was performed than when the first was rendered necessary; that the *extent of the division* was trivial in the second operation, as compared with the first; that the posterior constrictions were so extremely dilatable as to require no force to pass a full-sized instrument, in the second operation. It is customary with some surgeons, of large experience in urethral operations, to avoid the use of anæsthetics, if possible to do so, claiming that the sensations of the patient are of the greatest value, during an operation, and that a safeguard is thus placed upon the surgeon to deter him from doing further injury to the urethral walls than the case absolutely demands. Others, on the contrary, urge that the effect of pain and the nervous excitation produced by fear are powerful abettors of fever, and are to be eliminated only by the use of anæsthetics. Finally, it is claimed by some that the nausea and depression produced by the anæsthetic weaken the power of reaction, and that the symptoms of shock appear, in spite of the anæsthetic, in many instances.

II. *Would the patient have died without the cutting?* This question is hard to answer. Cases are reported where death has occurred from the simple passage of a sound by the most accomplished surgeons, and one case,* in which this operation had been performed at regular intervals for a long time previous to the fatal introduction.† Still, in the majority of cases, the fatal result has followed incision or laceration of the mucous structure of the urinary tract.

III. *Would any form of preparatory treatment have obviated this complication?* I have for some years used an infusion of triticum repens (dog-grass), and other diluent drinks, preparatory to any serious operation upon the urethra. I have also been an advocate of rest in bed, previous to any operation involving danger, and of the use of hot baths to the hips, as an antiphlogistic measure, both before and after operations upon the urethral canal, if practicable. In this case, too little time elapsed between the date of an attack of retention and that of the operation to allow of either of these precautions being long continued, but for twenty-four hours previous to the operation the last two were followed.

Long ‡ advocates, in his article upon the treatment of urethral fever, the administration of Fleming's tincture of aconite, in two-drop doses, after the use of instruments. It has not been proven to be a specific, however, since the three fatal cases reported by Banks § were so treated, and rapid death ensued in spite of the effect of the drug. In the present case, however, I did not have recourse to it until some hours after the operation, when the rigor appeared.

Dr. J. W. S. Gouley ‖ lays great stress upon the use of the muriated tincture of iron as a prophylactic against urethral fever. I have for some years used this agent in combination with the bromide of potassium, to allay irritability of the urinary tract; but I question if any form of diuretic will effectually prevent this accident, since in some cases of fatal urethral fever the kidneys have not proved to have been in an abnormal condition.

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* Banks, "Edin. Med. Jour.," June, 1871.

† Sir H. Thompson, "Stricture of Urethra": Jacksonian Prize Essay.

‡ "Liverpool Med.-Chir. Jour.," Jan., 1858.

§ "Edinb. Med. and Surg. Jour.," vol. xvi., p. 1074.

‖ "Diseases of the Urinary Organs." New York, 1873.

IV. *Are there any known conditions of body which in apparent health predispose to suppression of urine?* This question is one which may well merit most earnest investigation. Surgical fever, concerning which so much has been written, and to explain which so many theories have been advanced, bears to general surgery the same relation that suppression of urine bears to the surgery of the genital and urinary organs. Sir Henry Thompson regards patients from hot climates as peculiarly susceptible to this accident. With this possibility staring us in the face, with no means of positively avoiding it, no operation upon the urinary organs, however simple to perform, can be considered trivial. Fortunately for the patient, however, these cases are not so frequent as to bring discredit upon a method of radical cure which is fast becoming popular. Previous renal disease is always a contra-indication to urethrotomy, or even catheterism, unless practiced with the greatest caution. Inflammatory conditions of any of the urinary passages are also sources of danger, when associated with operative procedures upon the urethral canal. But I know as yet of no author who has attempted to define any general rules by which the danger of urethral fever may be positively inferred when the general health is unimpaired prior to the operation. It is rather remarkable that, in most of the reported cases of sudden death after catheterism or urethrotomy, the patients were robust, and in a physical condition rather above the average than below it.

The second case presented is the first of the character that I have ever met with. I do not attempt to explain the condition, but I present it as it stands, without comment.

CASE II.—LOSS OF THE PENIS AND BRIGHT'S DISEASE FOLLOWING CIRCUMCISION AND URETHROTOMY.—M. R., aged forty-nine years, married, was seen, in consultation with Dr. L. R., March 29, 1880. He gave the following history. He had suffered previous to September, 1879, with frequency of micturition and partial incontinence of urine. He had gonorrhœa twenty-five years ago, but had never had syphilis. He had noticed some diminution in the size of the stream of urine, but not enough to interfere with micturition. He weighed at that time nearly three hundred pounds, and was in other respects in good health. In September, 1879, he consented to the operation of circumcision as a means of relief for his incontinence, by the advice of a physician under whose charge he then was. This operation resulted in a slow recovery, due to delayed cicatrization. No benefit resulting, he underwent, by the advice of the same physician, internal urethrotomy, which was followed by serious hæmorrhage and a prolonged convalescence. Immediately after the latter operation, impotence followed, and his penis began to diminish rapidly in size, and, to use his own expression, "the head began to go in out of sight." Symptoms of renal disease appearing, he consulted another physician, who deemed a consultation advisable. On examination the following deformity of the penis was discovered:

A circular cicatrix, indicating the point of previous circumcision, was easily detected, and no evidence of a lack of the normal proportion of integument existed, thus excluding all question as to a superfluous amount of skin having been removed. The prepuce hung loosely over the original situation of the glans penis, which appeared to have entirely disappeared, as no evidence of its existence could be detected by ocular examination or by the touch. The testicle of each side was retracted, but of normal size, and no evidences of local disease could be perceived, excepting that the redundant skin of the former penis was indurated and excoriated by the urine which escaped from an orifice which could not be exposed without an incision being resorted to. This was deemed inexpedient, as his renal condition was serious, and as no absolute necessity existed for such a step, save the gratification of a positive diagnosis.

The remnant of the penis measured about one inch in length, but was of normal circumference. No sexual desire had existed since the urethrotomy. The scrotum was large, flabby, and redundant, and at first glance appeared empty, as the testicles were drawn tightly upward toward the inguinal canal. No urethral examination was attempted, as the patient complained of no difficulty in micturition, and as the orifice of the canal was hidden behind the indurated folds of the prepuce and could not be reached by instruments, except they were of extremely small caliber. In the perinæum, the corpus spongiosum could be distinctly felt in its normal situation, and no evidence of local tenderness could be detected in any part of the organ.

This case, like the one preceding, naturally suggests inquiry. Would this condition have occurred spontaneously? Would a healthy man have become suddenly impotent without discoverable cause? Had the urethrotomy or the circumcision anything to do with his present renal condition? If so, was the trivial inconvenience with which he was at first afflicted sufficient ground for an operation which, as it would seem, has possibly made him a greater sufferer, and which may yet cost him his life?

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Lectures.

A CLINICAL LECTURE,

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK,

By T. GAILLARD THOMAS, M. D.,
PROFESSOR OF OBSTETRICS AND THE DISEASES OF WOMEN AND CHILDREN.

(Reported for The New York Medical Journal.)

SARCOMA OF THE VULVA AND PERINÆUM.

Gentlemen: It needs but a glance at this old lady to tell that she is a very great sufferer; and it must, therefore, be our aim to find out what it is that is giving her so much distress, in order that we may relieve her, if possible.

Her name is Elizabeth R——; she was born in Ireland, is seventy-one years old, and has been a widow for the last five years. She has had seven children, but no miscarriages, and her last pregnancy occurred thirty years ago, from which we judge that the menopause occurred at the somewhat unusually early age of forty years. "Now, tell us in what way you suffer." "From piles or some sort of a lump." "How long have you felt this trouble?" "For nearly three months." "Have you suffered as much during the whole of that time as you have recently?" "Not so much at first; but I soon grew so bad that I could not sit." "Does it hurt you to lie down, too?" "I always have to lie on one hip." "Have you any pain at present?" "Not so much just now." "But sometimes you suffer a very great deal?" "Oh yes, indeed, bad enough." "Where is the pain of which you complain situated?" "In the lump."

The suffering of which this patient speaks, and which she apparently experiences to a great extent all the time, is by no means a pretense, I would have you understand, but a terrible reality. I suppose one scarcely could have suffered more than this poor old woman has during the last three months. Three months ago she noticed a little red lump, with a glazed surface, and of about the size of a cherry-stone, on the perinæum. It rapidly grew larger, and her physician, who is a gentleman with whom I am acquainted, has sent her here to-day to see if we can do anything for her relief. I should very much have liked to show you by ocular demonstration the present condition of affairs here; but on account of the state of the patient, and the restlessness and irritability of temper to which her intense sufferings give rise, it will be impossible. I trust, however, that I may be able to get a diagram made which will represent the existing condition in a better manner than any mere words can do.

What, then, did I find on making a physical examination to-day? The abnormal mass upon the perinæum, which three months ago was only of the size of a cherry-stone, has grown to such an extent that it covers not only the greater part of the perinæum but also both of the labia majora. Everywhere it projects in a very marked manner above the surface on which it is located, and, consequently, the portions on the two sides of the vulva block up the entire entrance to the vagina, with the exception of a narrow passage just beneath the meatus urinarius, through which the finger may with difficulty be made to pass up into the canal. When I first looked at the parts, I thought that there must be an eversion of the bladder in connection with a highly inflamed state of the areolar tissue contiguous to it. About the mass there were three distinct ulcerations of considerable area and depth, and characterized by grayish bases. Although the examination gave the patient so much pain that it was impossible for her to remain quiet, I succeeded in reaching the cervix with my finger, and I then ascertained that it was perfectly normal. Of course, it was greatly atrophied, as we should naturally expect to be the case in a woman of her age; but it was entirely free from any neoplasm or other evidence of disease. It is this mass, then, with the three inflammatory ulcers, which has given the patient all her trouble, and for which she comes to us to get relief.

The woman having now withdrawn, I may as well say at once that there is not the slightest chance in the world of doing her any good except by offering her such palliation of her sufferings as she may receive from the free use of anodynes. The tumor is unquestionably malignant. With the exception of the parts that are ulcerated, the surface is tense, smooth, red, and glistening in appearance, while to the touch it feels almost as hard as a board. When a portion of it is grasped between the thumb and fingers, it gives very much the sensation of a mass of cartilage. It therefore presents all the characteristics which any experienced examiner would desire for making a diagnosis. What kind of a malignant growth, then, is it? I do not think it is cancerous in its nature, but believe it to be a sarcoma. This, you see, is the second case of the disease which we have met with within two weeks; and these two cases are the only examples of it which have been here during the present season. In connection with this one, I trust you will be able to recall the instance that I mentioned last week, in which sarcoma occurred in an infant eighteen months old. The child was perfectly healthy in every other respect, the parents were both healthy, and it lived in a wholesome locality; and yet this fatal disease developed in its system. By a curious coincidence, the sarcoma of the babe of eighteen months was almost identical in position and appearance with that in the old woman of seventy-one. That, you will recollect, I removed twice by means of the galvanic cautery, with an interval of six months between the two operations; and the microscopic examination of both the tumors, as well as the one which returned after the second removal, and continued to grow up to the time of the child's death a few months afterward, confirmed the diagnosis of sarcoma which I had previously made.

But what would be the advantage of any active interference in the present case? The operation for the removal of the growth, you must remember, would be a very serious one here, and, as the patient is seventy-one years old, has been agonized by intense suffering for three months, and been reduced to a mere skeleton, it would be worse than useless to attempt it. But she wants relief, and this she must certainly get in one way if not in another. You have heard her say that she could not sit. When she does take a sitting posture, it is necessary for her to occupy such a position that the anus will come over the edge of the chair; and when she lies down, it must be on one side, and in such a way that the bed-covering will not come in contact with the diseased mass, as even this amount of pressure occasions her great agony. There is, unfortunately, nothing to be done for her except to keep her in bed, and give her opium in sufficient doses to effectually control the pain from which she suffers. The drug should be given her in whatever form seems to suit her best, as in different individuals different preparations of it are most satisfactory in their results. It would be utter folly to attempt to control the pain in such a case as this by chloral, the bromides, or any other agent whatever except opium.

PERICYSTITIS.

Our next patient is Maria McG——, a native of Ireland, and twenty-eight years of age. She has been married ten years, and has had seven children, but no miscarriages. Her last child was born fourteen weeks ago. "How long have you been sick?" "Fourteen weeks." (Or ever since the birth of the child.) "Did you have any difficulty at the time of your last labor?" "No." "For how long afterward did you do well?" "Until the third day." "What happened then?" "I was taken with inflammation of the bowels." In the treatment of this inflammatory affection, thus vaguely described (which may have been either pelvic cellulitis or peritonitis, and perhaps both), the patient tells me that her physician ordered her strong vaginal injections of what seems to have been carbolic acid in solution. Unfortunately, however, the nurse in attendance made the injection twice as strong as was directed by the doctor, and, instead of throwing it into the vagina, by mistake got the nozzle of the syringe into the orifice of the urethra, and emptied the whole contents of the instrument into the bladder. The result of such an application to the bladder can readily be imagined. A violent cystitis was set up, causing the most intense pain and vesical tenesmus. At once she commenced passing blood from the bladder, and this did not stop for ten weeks.

Now, let us put a few more questions to the patient. "Did you have any injections made to your womb after that?" "Yes, for some time." "Did they seem to do the inflammation good?" "I do not think they did; but the poultices used to help me a good deal." "How long did you have to remain in bed?" "Ten weeks." "And you were passing blood from the bladder all this time?" "Yes." "How much blood do you suppose you lost each day on an average—a tablespoonful?" "More than that." "A gill?" "Yes, I should think just about that much." (I do not doubt that she is correct in this statement as to the quantity of blood lost under the circumstances.) "Did you have to pass your water very often?" "Yes, all the time, and it caused me so much pain that all the relief I could get was by taking opium." "Was there anything in your water except blood?" "Yes; a great deal of matter, and sometimes pieces of dead skin." "Have you been getting better of late?" "I was getting a great deal better until within the last week or ten days." "How have you suffered since then?" "I have had a great deal of pain."

There is no reason whatever to doubt the history which this patient gives in a very straightforward manner. You know that the urethra is quite widely distended at the time of parturition, and sometimes remains more or less dilated for a while afterward; and it was because of this circumstance that the nurse made the mistake that she did. The result of the injection of a strong solution of carbolic acid into the bladder was that the whole lining membrane of the viscus sloughed off. It was this which formed the "dead skin" of which she has spoken, and some of which, she tells me, the physician was obliged to remove with the forceps. This is the first time that I have ever known such an accident to occur; but I have known of two others in connection with the bladder which were even still more remarkable. You are doubtless aware that one of Hodge's pessaries is called the open-lever or horseshoe pessary, because it has two free ends. In two instances I have actually known of physicians managing, by some peculiar and most unfortunate ingenuity, to work this instrument into the bladder through the urethral canal. One of these patients came to the Woman's Hospital in order to have a fistula produced by it operated upon, and I still have the instrument in my possession. The other was actually cut for stone; but, when the surgeon came to remove the supposed calculus, he found it impossible until he had divided it into two parts by means of the bone-forceps. The pessary was found to be completely covered with phosphatic deposit. Such a blunder as this seems almost incredible, but both these cases are true, to my certain knowledge. It is wonderful that a nurse, however ignorant, should have passed the nozzle of a syringe into a urethra dilated during labor; but I must say that, of the two varieties of accident, the latter must be regarded as showing much less culpability.

Well, you have heard this patient say that she had been improving up to a week or ten days ago. The pain since then has been increasing constantly, until she is now suffering agonies; and she can not account for this new outbreak of trouble except by supposing that she has taken cold. Of course, I proposed a vaginal examination in this case, and, as soon as my finger passed up into the vagina, I detected a large, dense, and almost fluctuating mass about the anterior wall of the canal, and extending back to the cervix uteri. I use the expression "almost fluctuating" because the woman was in such pain that I was not able to get a sense of fluctuation perfectly without increasing her suffering to too great an extent. The case was thus found to be at present one of pericystitis, or, in other words, of acute inflammation of the areolar tissue about the base of the bladder, and this has now gone on to the formation of an abscess. This is the cause, therefore, of the suffering that has lately supervened; for that there has been no return of the trouble within the bladder is shown by the fact that there has been of late no vesical tenesmus, and no passage of blood or purulent discharge. If this abscess were opened, the patient would at once experience the greatest possible relief; but she refuses to have the necessary incision made to-day. She has promised, however, that, in case there is not a spontaneous evacuation of the abscess within a week, she will return, and have the operation performed.

One word in conclusion as to the action of the carbolic acid here. This agent is, as you know, a violent escharotic when employed locally in any considerable strength. By way of illustrating its powerful effect, I may perhaps relate a case which occurred in the family of an acquaintance of mine. One of the servants had eczema of the hand, and, somebody having told her that carbolic acid was good for such eruptions, she purchased some at a druggist's, without stating for what purpose it was to be used. Unfortunately, the preparation sold her was the saturated solution of the acid, and, all unconscious of the serious results liable to come from such a procedure, the girl applied it thoroughly to two fingers, and went to bed. At first it caused her some pain, but this soon passed off under the peculiar anæsthetic effect of the drug, and before long she fell asleep. The next morning the two fingers presented the appearance of those of an Egyptian mummy, and amputation was necessary in consequence of their condition. In this case, as we have seen, the carbolic acid, although employed no doubt in a much less concentrated form than in the case of the servant-girl, produced a sloughing of the entire lining membrane of the bladder, so that it rapidly flaked away.

LACERATION OF THE CERVIX UTERI RESULTING IN URETHRITIS.

The next patient is Catherine C——, who was born in Ireland, is twenty-eight years old, and has had one child, but no miscarriages. She has been married one year and a half. "How old is your child?" "It would have been four months old if it had lived." "Did it die at the time of your confinement?" "Yes." "Did you have a difficult labor?" "Yes, I had to take chloroform, and they had to bring the baby dead." "Well, how long have you been sick?" "I don't think I am very sick." "But what do you complain of?"

"Trouble about my water." "And that is all?" "Yes." "How long have you had the difficulty?" "Ever since the child was born." "And you have had no ease since then?" "No." "Do you have to get up at night to pass your water?" "Usually." "How often during the night?" "Only once, generally." "Do you have to pass it very frequently through the day?" "No, not very often; but, when I do pass it, it causes me great agony." "And that is all that you complain of?" "Yes."

You see that it is not because she has to pass her urine at very short intervals, but on account of the intense scalding from which she suffers in passing it, that her life is rendered really miserable. The pain caused by it is so acute that she dreads to make water at all, and always retains the contents of the bladder as long as she possibly can. There is one other symptom present, which she has not mentioned in the account she has given us, and that is leucorrhœa.

On making an examination I found the orifice of the urethra quite red and swollen. There was evidently a well-marked inflammatory action going on, which presented all the appearances of a specific urethritis, such as may occur in the female as well as the male. When I continued my exploration farther on up into the vaginal canal, however, I discovered what I am convinced is the real cause of the whole trouble here; although this might not perhaps at first seem likely. What I found was a bad unilateral laceration of the cervix, extending quite up to the cervico-vaginal junction, and when I placed the patient upon her side and introduced the speculum, I saw that a profuse muco-purulent discharge was pouring from the inflamed surfaces of the laceration. But, in addition to this (and without doubt caused entirely by it), there was a well-marked vaginitis, which had evidently commenced in the upper portion of the canal, where the cervix is located, and from thence spread along its lining mucous membrane until the meatus urinarius had been reached; after which the inflammatory process had extended for a greater or less distance up into the urethra. When the orifice of the urethra was examined carefully, a very small caruncle could be discovered just within the canal; but it was so minute that I saw at once that it could not have given rise to the urgent symptoms present in connection with the passage of urine. I believe that you might treat this urethritis for any length of time, and yet the moment that you ceased exactly the same symptoms would return, as long as the lacerated cervix was allowed to remain in its present condition. The original cause of the trouble would still be left untouched. In a case like this, therefore, it is absolutely essential that we should begin at the root of the evil; and, if the proper course of treatment could be carried out here, I think this patient would afford a very striking example of the incalculable advantage of always getting at the original source of trouble. If this woman could enter my service at the Woman's Hospital, for instance, I am confident that she could be discharged in the course of a month or six weeks perfectly well. The first thing that I would order would be very copious hot-water injections, both for the sake of thoroughly cleansing the parts, and in order to prevent the acrid discharge from the lacerated cervix from producing any further irritation. Then, just as soon as practicable, I would pare the edges of the torn cervix, and bring them together by means of silver-wire sutures. Having removed the cause, the urethral trouble would not remain long, if an appropriate course of treatment were adopted. The first thing to do in regard to it would be to dilate the canal by means of graduated bougies, and then, seizing the little caruncle with a tenaculum, to snip it off with the scissors. It is so small that the hæmorrhage from its removal would be very trifling in amount. Finally, a weak solution of nitrate of silver (from ten to fifteen grains to the ounce) should be applied to the whole canal; and this might be repeated if necessary. At the same time diluents and antacids might be given internally for the purpose of rendering the urine alkaline and less liable to produce further irritation of the inflamed mucous membrane over which it passed. One of the best antacids that can be used is Rochelle salt, about a drachm of which should be given three times a day in a large quantity of water. The ordinary bi-carbonate of soda is also serviceable in such cases.

AGGRAVATED ANTEFLEXION.

Our fourth case is, like the others we have had to-day, a very interesting and instructive one. The patient's name is Susan P——, a native of Wales. She is twenty-five years of age, has been married seven years, and has had seven children, but no miscarriages. This is the fourth case now that we have had to-day in which the woman has never had a miscarriage, and this is such a very unusual and remarkable circumstance at the clinic that it deserves to be specially noted.

"How long is it since you had your last child?" "Three years." "And how long have you been sick?" "Three years."

I have frequently called your attention before to the fact (and you must all certainly have noticed it for yourselves), that in the vast majority of instances the patients who apply here for advice and treatment date all their trouble, and with reason, to a confinement or miscarriage. This was the case with the woman who just went out, as well as with the one who preceded her; and it occurs over and over again. It is, then, an unquestionable fact that childbirth is the great factor in the various diseases peculiar to women. And yet in how many instances are the accidents which give rise to these diseases preventable, or, at least, capable of such treatment at the time they occur that no after-consequences will result from them! For instance, the injection of a strong solution of carbolic acid into the bladder might certainly have been avoided in the second case; and it is possible that the laceration of the cervix might have been avoided in the last case if proper care had been observed in the management of the labor. But, even in case the latter could not have been prevented, all the unpleasant consequences which have now resulted from the laceration might have been avoided by the prompt repair of the injury. The day is coming, I assure you, when every obstetrician will feel imperatively called upon to at once make such repair, if any similar accident has occurred during labor in any case that he attends, and when he will be held culpable if he does not. Before dismissing a patient after confinement, we should always be sure to make a thorough examination of all the pelvic organs and of the external parts, in order to be sure that everything is right. And yet, how often, in looking to see if there is any rupture of the perinæum, for instance, how very superficial the examination is apt to be because the medical attendant's mind is strongly prejudiced in favor of there not being any laceration! It is, of course, very easy not to find anything when we do not want to do so. When, however, the day arrives when obstetricians will perform their whole duty in every case of confinement which they attend, you can readily see what a vast amount of good will result. In a large number of instances complete retroversion or anteversion takes place within six weeks after parturition, and, of course, such a condition can be much more promptly and satisfactorily remedied if it is attended to at that time than if it is allowed to go on for months or years without treatment. But to return to the case in hand.

"What have you complained of?" "Pain and nervousness." "Where is the pain situated?" "In the back and left side, low down." "Have you had any other trouble?" "Headache and weakness of the eyes." "Do you suffer much at your monthly periods?" "Yes, a great deal." "Was this the case before the birth of your last child?" "No." "Have you had great pain at such times ever since its birth?" "No, only lately." "Do you lose too much or too little blood?" "I lose a great deal more than I ought to." "Do you have any trouble with your bladder?" "Yes, I have to pass my water very often indeed." "Do you have the whites?" "A little." "How are your bowels?" "Very costive." "Are you able to lift anything heavy now?" "No, I can not do anything that strains me." "Was this the case before the birth of the child?" "Oh, I could do anything then."

Here was a perfectly healthy young woman, who married and had two children, remaining quite well all the time; but ever since her third child was born she has been comparatively useless. She suffers a great deal from bladder trouble, being obliged to pass her water, as she informs me, several times every night, and this interruption of her natural sleep no doubt accounts in great part for the nervousness of which she complains. In addition, she is troubled with more or less constant headache and pain in the back and through the pelvis, as well as from marked dysmenorrhœa. But more marked than all the other symptoms of which she complains is her menorrhagia. The flow, she tells me, is exceedingly profuse, and lasts four or five days. At such times she is scarcely able to be up at all, but is obliged from her circumstances to attend to her usual avocations as well as she can. The physical examination which I undertook in her case showed that the cervix was normal, but in front of it there was a mass which pressed directly down upon the bladder. At once I said to myself that this, whatever it was, must in all probability be the cause of the difficulty here, because it was an entirely unnatural condition; and when I resorted to conjoined manipulation, I found that the mass was really the body of the uterus, for I was able to map out the organ quite distinctly through the abdominal walls. This is by far the most marked case of anteflexion that we have met with during the whole course, and, when I represent the uterus upon the black-board as it now exists in the patient, you see that it is so much bent over that the fundus actually comes down almost to the level of the cervix. Now, how did this aggravated anteflexion occur? It probably originated just after childbirth, on account of the size and weight of the organ at that time. The patient got up and attended to her ordinary occupations, which involved a great deal of hard work, on the ninth day, and the involution of the uterus, you know, is never completed till at least six weeks after normal parturition. The fundus thus being very heavy, and the tissues which support the uterus unusually vascular, or "succulent," as the Germans describe them, and, at the same time, great pressure being brought to bear from above, in consequence of the patient's lifting heavy weights and making other severe exertions, the natural consequence was that the uterus should become markedly bent. As a result of this the blood-vessels of the organ also became bent; but the arteries, in consequence of the resistance of their walls, remained pervious, while the veins were more or less completely obstructed. Hence the uterus became constantly more and more congested—the arteries bringing to it its accustomed supply of blood, while the veins, because of the pressure upon their pliable walls resulting from the flexure, were unable to return this as usual. The effect produced was precisely that which is seen when a bandage is wound tightly around the arm for the purpose of venesection, for instance.

We are now in a position, I think, to account satisfactorily for all the symptoms noticed in this case. In the first place, the leucorrhœa is without doubt due to the engorgement of the lining mucous membrane of the uterus. Secondly, the nervous symptoms and headache are in all probability due to the effect produced upon the nerves supplying the body of the uterus by the derangement of the circulation of the part, while the pain in the back is also a reflex phenomenon due to the same cause. Thirdly, the menorrhagia, of course, results from the congestion of the uterus which has now lasted so long. Fourthly, the dysmenorrhœa is explained by the difficulty which the menstrual blood has in escaping from the uterus, in consequence of the flexure of the organ. The condition of its canal is very well represented by a bent tube, in which you can readily see how the passage of fluid would be obstructed. Fifthly, the bladder is mechanically interfered with by the anteflexed uterus, and has grown irritable in consequence of the constant pressure exerted upon it. The loss of blood from the menorrhagia, and the loss of sleep in consequence of the irritability of the bladder, must be added as important factors in producing the present nervous condition of our patient. And so, I think, almost any one would acknowledge that every symptom noted in connection with the case has been perfectly explained by the diagnosis which has been made here.

You must have noticed how frequently I have to give a bad prognosis in anteflexion (as far as regards a cure), and this is because it is so often impossible to restore the uterus to its normal condition, mechanical treatment being of little or no value. But in this instance I am happy to state I find that I am able to completely replace the organ, and that alters the prognosis very materially. I believe that in a single month from now this patient can be relieved of most of her distressing symptoms, and, what is more, put in a fair way of complete recovery at no distant date. What must be done here?

Only one thing is really necessary, and that common sense at once suggests, viz., to replace the anteflexed uterus, and keep it in its normal position. This alone can give relief to this patient, just as removing the bandage from the arm will alone relieve the engorgement produced by its constriction. This anteflexion is a mechanical affection, just as much so as a dislocation of the head of the humerus from the glenoid cavity is, and as well might you attempt to cure a dislocated shoulder by prescribing change of air, generous diet, and tonics, as to overcome the difficulty met with here by anything else than a mechanical treatment.

What should be done here is to make repeated replacements of the uterus for a short time, and then to introduce some well-constructed and appropriate pessary, which will keep the organ permanently in position. This is all that we have to do in order to secure a complete cure, or, at all events, complete relief from all the trouble of which the patient now complains, and I am very glad to have the opportunity of showing you such a case as this, because it is not often that so many and such marked symptoms as are here present can be successfully treated by such very simple means.

Editorials.

THE CARTWRIGHT LECTURES.

It is undoubtedly the case that physicians practicing in various parts of the country resort to New York, in constantly increasing numbers, for a sojourn of several weeks or months during the winter sessions of the medical schools. This they do to enable themselves to keep up with the progress of their profession; and the fact that it is done more and more every year is in the highest degree satisfactory, as showing that physicians appreciate more generally than was once the case that their education does not end with the possession of a diploma—that, however much their wit may be sharpened by rivalry or their judgment ripened by experience, they still need a fresh stock of actual knowledge from time to time.

Here for many years past they have found no lack of hospital facilities or of teachers skilled in the various branches of physical diagnosis and manipulative therapeutics. But, above all these, the didactic lecture has its charms and its advantages. It makes a far deeper and more lasting impression than would the same words in print. Being stored away in the mind, it is far more readily brought forward when required. Hence these gentlemen have, as a rule, attended the regular lectures at the schools. Although not fully up to the requirements of the practitioner, being purposely kept down within the student's range of comprehension, these lectures were the best that New York had to offer.

Now, however, thanks to the generosity of the late Mr. Benjamin Cartwright, of Newark, New Jersey, the Alumni Association of the College of Physicians and Surgeons has come into possession of a fund, a portion of which is to be devoted to the endowment of an annual course of lectures upon subjects connected with medical science. We learn that the opening course is to be given next winter by Professor Roberts Bartholow, of the Jefferson Medical College, Philadelphia. The Association is to be congratulated upon this fresh proof of the success which is attending its efforts to improve the advantages offered by the College, and the profession in New York may well feel gratified that the small end of a wedge has at last been entered, and we may be justified in the hope that in the future the munificent may now and then think it worth while to bestow a portion of their bounty in aid of medical progress—a work which has thus far been carried on at the expense of physicians themselves almost solely. For many years the Goulstonian, the Lumleian, the Harveian, and other endowed courses of lectures have added to the *éclat* of London as a resort for medical knowledge; recently the Toner lectures have been established in Washington; and now, none too soon, New York takes this step in advance—a step that may prove the immediate precursor, we trust, of many others in the same direction.

MEDICAL SLANG.

The rarity with which either purity or precision figures in the medical language of the present time, whether spoken or written, not only tends to lower us in the minds of the laity, who are apt to take it for granted, and not without reason, that he who can not speak or write correctly can not, *prima facie*, be presumed to think clearly—in other words, to be a "clear-headed" man, but also embarrasses in some degree the progress of medicine. As regards the former effect, no doubt we can reasonably claim to be judged by our best work, and can point to the writings of Sir Thomas Watson, Sir James Paget, Mr. John Simon, and a few others, as showing that medical language is not invariably clumsy and ambiguous; but these gems are so overlain by base matter that we can scarcely expect them to catch the eye of him who runs as he reads. As to the effect of bad writing upon the diffusion and advance of knowledge in medicine, enough is said when we call attention to the frequency with which erroneous translations are made. Now, these errors are not always due to the translator's imperfect knowledge of the language in which the writing first appeared, but more generally either to his inability to write with precision in his own tongue, or to shortcomings on the part of the author. Faulty punctuation plays no small part in befogging the meaning of many an author. How much greater confusion it would lead to but for the kind intervention of the printer is too appalling a thought to linger over. We could mention a handbook, now in its fourth edition, in which the punctuation is so bad that Lord Timothy Dexter's plan would have been far preferable.

Much as we may deprecate loose and inexact writing, however, it does not make us quite so ridiculous as do certain gross improprieties of speech, of the newspaper style, that have crept into wide use, and that, if they can not be fitly classed under the head of slang, can surely be rated as but little better. Seldom, indeed, do we read a society report in which the tenses are not hopelessly jumbled. The word *case* is often used where the word *patient* should appear. A case is said to have "taken cold," "had a chill," etc. The word *clinical* in its varied uses will, we fancy, puzzle the etymologist of the future not a little. The most absurd use to which it has been put, so far as we are aware, is in the horrible expression, "clinical case." There is a medical society in New York whose cards of announcement almost always state that the order for the evening will be "clinical cases." We have lately encountered a somewhat similar expression in French—*viscères splanchniques.* It is frequently stated that after a certain operation "no reaction followed," the meaning being that no fever followed. In the progress of a case, one drug is often said to have been "substituted by" another, an expression that brings to mind the days of "bounty jumping." The use of *pubis* for *pubes*, of *ileum* for *ilium* (meaning the bone), of the mere word *portio* where the infra-vaginal portion of the cervix uteri is meant, of *steel* for *iron*, etc., has been so often the subject of criticism, without any appreciable reform having been effected, that it seems almost useless to continue the fight.

MINOR PARAGRAPHS.

The quarterly reports on laryngology, which Dr. Lefferts has contributed to this Journal for several years past, ceased with the report that appeared in the January number. This announcement should have been made in the April number, which in the regular order would otherwise have contained one of them; but there was not space enough at our disposal even for so brief a statement, since we could not give the bare announcement by itself, unaccompanied with an expression of our appreciation of the great value which these reports have possessed, particularly for those specially interested in the surgery of the throat. Dr. Lefferts has undertaken to do the same work for the new quarterly journal, the "Archives of Laryngology," to be edited by Dr. Louis Elsberg, and published by Messrs. G. P. Putnam's Sons.

In lieu of special reports on laryngology, so much of that department of medicine as seems to be of interest to the general practitioner will hereafter be given in this JOURNAL in the quarterly reports on surgery, from which the subject of orthopædic surgery will be detached, to appear by itself in another special series of reports.

IN the future we can not under ordinary circumstances undertake to give formal reviews of such serial publications as hospital reports, society transactions, and the like, as we can not devote the necessary space to them. Moreover, the contents of such volumes are almost always so varied in character that it is almost impossible for any one reviewer to do justice to them. They will always be promptly acknowledged, however, and their matter will be summarized, so far as practicable, in our department of "Reports on the Progress of Medicine." In this way they will, we feel, be more fully and satisfactorily digested than could be done in reviews.

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Reviews and Literary Notes.

A Treatise on the Science and Practice of Midwifery. By W. S. PLAYFAIR, M. D., F. R. C. P., etc. Third American edition, revised and corrected by the author. With notes and additions, by ROBERT P. HARRIS, M. D. With two plates and one hundred and eighty-three illustrations. Philadelphia: Henry C. Lea, 1880. Pp. 655.

THE rapidity with which one edition of this work follows another is proof alike of its excellence and of the estimate that the profession has formed of it. It is indeed so well known and so highly valued that nothing need now be said of it as a whole. We shall therefore confine our remarks to one or two of the more prominent of the author's additions and to the work of the American editor, Dr. Harris.

The author accords a separate chapter to laparo-elytrotomy. "If," he says, "further experience proves that the practical difficulties of the operation do not stand in the way of its adoption, Dr. Thomas will have introduced, by his able advocacy of the operation, probably the greatest improvement in modern obstetrics." Dr. Harris adds, however: "I have but little to add in reference to this scientific but difficult operation, which must be necessarily limited in its adoption, because of the skill and number of assistants which it requires, and the many cases in which it is inadmissible. In forty-five out of the one hundred and twelve Cæsarean cases in my record, it could not have been performed. Seven operations in nine years is very slow progress compared with the Porro method, as shown by the reports of the latter from the Continent, where it is now being performed on an average of about once a month, and with a degree of success more satisfactory than is shown by the record of the Thomas method. The anatomical skill demanded, together with its other requirements, will necessarily confine laparo-elytrotomy to our large cities, and limit the great future which has been anticipated for it. It has by no means as yet had a full trial."

The author briefly but fairly presents the advantages of Porro's modification of the Cæsarean operation, in which the uterus (before opening it, if practicable) is brought out through the abdominal incision, its cervix secured in the chain of an écraseur, by which all bleeding is controlled, and then the organ opened and relieved of its contents, after which it is itself removed, together with the ovaries—the stump of the cervix, still surrounded by the chain, being finally secured in the lower part of the abdominal wound, like the pedicle of an ovarian tumor. Dr. Harris thinks the scope of this operation to be limited to cases in which laparotomy has been too long deferred, so that the uterus has in a great measure lost its contractile power, and to cases where there is a uterine tumor giving rise to danger of hæmorrhage. Our own impression is that Porro's method must add very materially to the safety of the Cæsarean operation in almost all cases, and we therefore can not agree with Dr. Harris in thus limiting its range.

We have remarked thus early upon these subjects, notwithstanding that they are placed toward the close of the volume, because we think it proper to consider the author's additions first. We will now notice some of the more important of Dr. Harris's matter. And, first of all, it gives us great pleasure to say that it is of great value in its substance, and very clearly and tersely put.

Dr. Harris doubts the correctness of certain diagnoses that have recently been made of extra-uterine pregnancy terminating in the expulsion of the fœtus *per vias naturales*, the explanation being that the fœtus was first extruded from the Fallopian tube into the cavity of the uterus. Pending post-mortem verification of this explanation, he prefers to consider that the ovum was contained in one of the cavities of a partitioned uterus—a state of the organ which, he remarks, has often escaped detection by the most skillful gynæcologists. In the light of recent experience, he very properly urges the danger of delaying laparotomy in cases of extra-uterine pregnancy in which the patient's condition is indicative of peril.

Dr. Harris ascribes great value to the use of opium in preventing abortion. He regards the efficiency of the viburnum prunifolium as not yet proved.

He states that anæsthetics are now much less frequently used in this country during labor than they were soon after their introduction, and he seems to us to entertain an exaggerated idea of the frequency with which they prove of disadvantage.

We object to the term "version by the vertex," as applied to manipulations intended to produce rotation of the occiput forward in occipito-posterior positions. We do not make out clearly what course Dr. Harris advises in cases where spontaneous rotation fails to take place. He admires the late Dr. Parry's use of his "small and thin" hand in rectifying the mal-position, but then follows this somewhat contradictory passage: "It will not do to advocate a general use of the hand in obstetric practice, as few have such as it would be safe to use, especially in primiparæ. I have known a primipara labor for hours to deliver herself, . . . when all that was needed was the assistance of a suitable hand during three pains to bring the occiput fairly under the arch of the pubes."

As regards the power of quinine as an oxytocic, he quotes with approval the conclusions of Dr. Albert H. Smith that, while it has no power to initiate uterine contractions, it is yet often sufficient to rekindle the energy of flagging pains during labor, and is very efficient in securing tonic contraction after delivery, thus diminishing the danger of hæmorrhage and the liability to after-pains.

The subject of ante-partum hour-glass contraction, first brought forward by Dr. Hosmer, of Massachusetts, is very intelligently discussed by the author, and Dr. Harris adds to the casuistics an example communicated by Dr. T. A. Foster, of Portland, Maine, in which the Cæsarean operation was found necessary.

Under the head of placenta prævia, Dr. Harris cites the statistics of Drs. Trask and King as going to show, contrary to the common opinion, that this abnormality does not tend more and more to occur with successive pregnancies. According to these statistics, it has been met with most frequently in second pregnancies. In the treatment he favors the use of the tampon, although it is condemned by most obstetricians, and he founds his opinion on its having succeeded in thirteen out of fifteen cases given in King's table, in which it appeared to have been the chief reliance. As to the hot-water douche—" Can it," he asks, " do much better that this?" The cervical tampon is the one referred to, apparently.

Laparotomy is strongly urged in rupture of the uterus, even where it is easy to extract the child *per vias naturales;* for scarcely less important than the removal of the fœtus is the cleansing of the peritoneal cavity. The indication is not so urgent, however, where the laceration involves only the vagina and the cervical portion of the uterus, for here more or less natural drainage may be looked for.

He gives a most remarkable case of reduction of an inverted uterus of three years' standing by simply placing the anæsthetized patient in the knee-chest posture and retracting the perinæum with a Sims speculum. "When explored, the uterus was found to be very soft and thin, and to contain some hard nodular masses, which on removal proved to be portions of an adherent placenta."

Dr. Harris gives a very full and critical account of the various forms of the obstetric forceps most used in America. We may be pardoned for remarking that it gives us somewhat the impression of a market-report, if we add that it contains a great deal of useful information not to be found in any other work. The general tenor of his remarks on the use of the forceps is very judicious.

As most of our readers probably know, Dr. Harris is an earnest and eloquent advocate of the Cæsarean operation, and in this work he urges the danger of regarding it as a terrible last resort, not to be thought of until things have come to a desperate pass, for by not resorting to it early enough it becomes far more dangerous, from the uterus passing into a state of atony, involving a disposition to patency of the uterine incision, and thus favoring hæmorrhage and the escape of blood and secretions into the abdominal cavity. He hints that the profession here have become infected with the timidity of the British in regard to the operation, and that in this respect we have retrograded. For uniting the uterine wound, he prefers silver-wire sutures, and pointedly condemns catgut, whether plain or carbolized, as liable to stretch and become untied.

Dr. Harris believes that the entire abandonment of blood-letting in puerperal fever has been a grave error. He thinks that where there is, early in the attack, a high pulse, with great abdominal distention and tenderness, and a decided rise of temperature, we should bleed the patient, sitting, at once, and to such an extent as to produce a decided impression. We fear that the general feeling of the profession will hardly sustain this teaching, and, on the other hand, it seems scarce enough to entitle Dr. Harris to be called "a good Gordonian bleeder."

It is not too much to say that the work, as it now stands, takes much of its tone from Dr. Harris. This is as it should be, and we trust that the time is drawing to a close in which an American editor will be content to have his name figure chiefly on the title-page. All things considered, we regard this treatise as the very best on midwifery in the English language.

Brain-Work and Overwork. By Dr. H. C. Wood, Clinical Professor, etc. Philadelphia: Presley Blakiston, 1880. 12mo, pp. 126.

This is the tenth of the series of "American Health Primers." Its principal chapters treat of the general causes of nervous trouble, of the effects of work of various kinds, and of the great natural remedy—rest, in labor, in recreation, and in sleep. It has the great merit of being agreeable reading, and can not fail to be of service to the public, for whom it is especially written, as well as to the profession. Although its teachings are sound in general, some of the statements it contains seem crude and questionable, and, in view of the distinction of the author, suggest the idea that it was somewhat hastily written. What, for instance, are we to understand by the statement that alcohol has often been found in the brain "in almost concentrated solution"? "The law of habit" is no more satisfactory as a cause or explanation of the phenomena of sleep than the "cerebral anæmia" of other authors; but that sleep in sufficient quantity to refresh the system is necessary to health can not be too strongly inculcated. The author gives good advice regarding the use of narcotics, but does not speak of that remarkable difference in the effect of different doses, and in different individuals, which depends on the predominance of their stimulant or their sedative action. Nor is the influence of climate on the nervous system and on its tolerance of strain and stimulation alluded to. The subject of diet specially suited to the brain-worker is summarily dismissed with the denial that any such adaptation exists; but if the value, in nutrition, of narcotics and stimulants is worthy of consideration, why are not also some of those articles in frequent family use, which are medicines because they are food, like iron and phosphoric acid? The enlightenment of the public in common-sense therapeutics would be likely to prevent promiscuous dosing, while it would contribute to the early and preventive use of safe and simple remedies.

The author especially disclaims being a "thorough-going materialist"; but, if he were, his statement of modes of action in nervous tissue could hardly be more mechanical or more positive. The term "friction" can only be applied to mental processes by a figure of speech, and rhetoric is not logic, though often misused for it. In regard to the advisability of reducing excitement during labor to as low a point as possible, to avoid distending cerebral blood-vessels, and for fear of those *bêtes noires*, "pressure" and "congestion," the author's language seems liable to excite unnecessary alarm. The blasting effects of *blood* upon the tissues are sometimes so harrowingly alluded to by neurologists as to excite wonder how the human system is able to tolerate such a dangerous fluid. There are facts and figures which go to show that the dull, monotonous life of the New England farmer is more favorable to the development of nervous disease than that of the Wall Street broker, with all its feverish excitement. That a considerable degree of pleasurable excitement facilitates mental exertion, without increasing the resulting fatigue, is too familiar a fact to be denied. Functional activity does not always need to be recovered from, like a disease. In the working of machinery, and to some extent in muscular labor, the wear and tear correspond to the result obtained, but not so with cerebral action. It is the kind, oftener than the amount, of emotion or excitement that determines the degree of exhaustion, and while we may not deny that thought and feeling are always concomitant with molecular action and waste of tissue, it does not follow that the amount and degree are always correspondent. We are continually conscious that varying degrees of effort are needed for the same or similar acts, and the amount of reaction to be expected after a given exertion of the nervous system is exceeding difficult to determine.

The assumption that, as the hemispheres surmount and cover the ganglia at the base of the brain, the Creative mind has so placed this really most important portion in order to protect the parts beneath, calls to mind the delightful simplicity with which, in Quain's "Anatomy," the wisdom of Divine Providence is extolled for not continuing the coccyx downward in a straight line, because that arrangement "would render the sitting posture irksome, if not impossible."

The rules given for brain-workers, the first of which only is open to doubt, are as follows: "1. To avoid excitement and emotional disturbance as far as possible. 2. To take proper rest, one proportionate to the labor. 3. To keep in order the instruments" [special sense apparatus, etc.] "with which the brain works. 4. To avoid unnecessary labor and worry. 5. To avoid overtaxing the unmatured brain."

The author's views about children and women's work are well deserving of attention. He would require no real work of a child under six. He calls attention to the neglect by women of the excellent field offered by pharmacy and clerical labor for their special abilities, while they everywhere aspire to the professions which demand a power of endurance that they rarely possess. He remarks that when woman can compete with man in muscular contest, she will probably do the same in intellectual rivalry, and that coeducation even would probably be more injurious, but that woman ripens earlier than man.

The author shows how rest, or at least refreshment, may be obtained by variety in work, as well as by stated recreation; and exposes the fallacy of unduly developing the muscular system, ostensibly for the advantage of other organs, but really too often at their expense. He states, and truly, that much of what he inculcates is simple common sense; but disregard of plain rules of health is so nearly universal in this country that the lesson can hardly be drawn too often or too forcibly.

Eyesight: Good and Bad. A Treatise on the Exercise and Preservation of Vision. By Robert Brudenell Carter, F. R. C. S. London: Macmillan & Co., 1880. Pp. viii.–265.

This little volume is an endeavor on the part of the author to explain to that large class of people known as patients the importance of recognizing early defects of vision, congenital or otherwise, the dangers of allowing these defects to continue uncorrected or unremedied, and the means to be taken in exercising and preserving the vision. It is prefaced by a chapter upon the normal structure of the eye and its appendages, which is a somewhat more successful attempt at popularizing a knowledge of human anatomy than such efforts usually are. There are one or two slight inaccuracies in this chapter, such as speaking of the cartilage of the lid, while there is no cartilage; and describing the pupil as being a hole through the center of the iris, whereas it is to the nasal side of and below the center. The chapter on the properties of lenses, though clear, is scarcely full enough for a proper understanding of the subject.

On page 55 is a very probable and plausible explanation of the phenomenon that inverted images upon the retina produce erect vision of the objects which the images represent. The inversion of the retinal image may be self-correcting, when regarded as a source of the sensory impressions which are carried to the brain.

In the chapter on near and distant vision the discussion on accommodation is not clear and intelligible enough for the patient, though perfectly so for the medical student or practitioner; but, when Mr. Carter comes to speak of the intimate connection between the act of accommodation and the convergence of the eyes, he expresses himself admirably. He admits the existence of a doubt as to whether this connection and interdependence are congenital or acquired, but this is a point that does not admit of discussion here.

We think he is in error when he asserts that myopia is always present and proven when a concave lens restores distant vision to the normal standard, for emmetropes will often accept a concave glass, and see well with it. He calls attention to several erroneous popular beliefs which have a strong hold upon the public credulity; such as the belief that short-sighted eyes are good or strong eyes, that short sight improves with advancing life, and that short-sighted people need never use spectacles for near work; and explains their origin. He discusses briefly the causes of myopia, and refers to the work done in this country, as well as elsewhere, toward determining these causes. This is especially remarkable, as hitherto Mr. Carter has rather persistently ignored the fact that any work has been done in the United States in the field of ophthalmology. He thinks careful and judicious sanitary oversight in the regulating of children's lives to be of extreme importance in preventing the increase of myopia, and in this every ophthalmologist will agree with him. But we object strongly to the word "sanitation" as unnecessary. In the treatment of the group of symptoms which we call asthenopia, he thinks it advisable first to correct the ametropia by the proper glass, and then, if the symptoms still continue, to make the convergence a fixed quantity to a point fifteen inches distant or thereabouts, and then modify the accommodation to harmonize with it; and this is done by the addition of prisms with their bases inward or outward, according as we wish to increase or diminish the convergence. We are again surprised farther on by finding Mr. Carter give full credit to Dr. Dyer, of Pittsburgh, for the plan of systematic muscular training of the eyes, which he first described and enforced in his own practice.

In the chapter on the care of the eyes in infancy, we dissent entirely from the statement that, if purulent conjunctivitis in babies were taken in hand early and treated with proper care, very few eyes would be lost by suppuration of the cornea. Such eyes are not uncommonly destroyed in a few days, even when properly treated from the beginning, and there seems to be a special virulence in some of these cases.

His discussion of natural and artificial illumination and of the disadvantages of the latter is practical and useful. He indorses strongly the Silber argand burner, which can be applied to both oil lamps and gas-burners, and gives a full description of the lamp. There is a chapter on contrivances for saving visual effort, in which Mr. Carter speaks highly of Thursfield's writing-frame and of Remington's type-writer. Of the former we know very little, but we can certify from a number of cases that the latter not unfrequently does harm in bringing on obstinate asthenopic symptoms in patients who have no error of refraction, but who are obliged to use the instrument constantly.

The style of the book is generally clear, but we do not think the subject one that can be popularized. The moment that the subject of errors of refraction and accommodation is approached, and it becomes necessary to speak of the mode of action of lenses, the language employed becomes technical, and, unless the patient has received a liberal education, this book is not for him, but for the physician. The type is especially clear and worthy of commendation. If our books were only printed on rather deeply tinted paper, or even with white letters on a dark or black paper, cases of asthenopia, not due to errors of refraction, would not be so common.

Pay for Hospital Treatment:

1. *Pay Hospitals and Paying Wards throughout the World.* Facts in Support of a Rearrangement of the English System of Medical Relief. By Henry C. Burdett, Honorary Secretary, etc. London: J. & A. Churchill, 1879. Pp. 169.
2. *A Point in Hospital Management.* Being a Portion of the Remarks made by the Retiring President, J. S. Prout, M. D., of Brooklyn, N. Y., at the Annual Meeting of the Medical Society of the County of Kings, N. Y., January 20, 1880. Reprinted from the Proceedings. Pp. 6.

Mr. Burdett was formerly General Superintendent of the Queen's Hospital, Birmingham, and has devoted many years to the study of hospital administration and management.

His object in the present work is to present such facts, drawn from widely different localities during the past three years, with the aid of various gentlemen in all parts of Europe, the United States, and Canada, as will, he hopes, induce coöperation among English hospital managers, and rearrangement of what he calls "the present pauperizing system of English medical relief."

While the pay-ward system and some other features of American hospital management receive high encomium, it becomes sufficiently evident that the managers of these institutions will also do well to profit by the author's labors. He states that at the Massachusetts General Hospital, of Boston, which he selects as the representative of the American system, as one of the largest and best managed in the country, the free Out-patient Department is abused to the extent of thirty-three per cent., although medicines are furnished in a few cases only. In London it is far worse, the Royal Free Hospital being victimized to the extent of seventy-four per cent., including those able to pay a provident dispensary. In Liverpool it is no better, and it is found that in 1877 *one in two* of the whole population received gratuitous medical relief!

The remedy proposed is the establishment of provident dispensaries in proportion to the wants of the population, and the details of the plans are well worth perusal.

Apropos of American affairs, the author warmly protests against the injustice by which the attending officers in our hospitals receive no remuneration for their services to patients who occupy private rooms.

Dr. Prout's pamphlet is devoted to this same subject. He lays down the following proposition, and suggests a few simple rules for carrying out the plan. It would seem as if, with proper coöperation and representation, the establishment of some equitable system in this matter need be only a matter of time.

"PROPOSITION: A general hospital should have private rooms, the patients occupying which may choose their own medical attendants, whether on the hospital staff or not, paying them for their services at their usual rates of charging. The hospital shall furnish such patients with all other necessaries at the ordinary published rates for private patients."

On Loss of Weight, Blood-spitting, and Lung Disease. By HORACE DOBELL, M. D. Second edition, revised, enlarged, and annotated, to which is now added Part VI., on the Functions and Disorders of the Liver. London: J. & A. Churchill, 1880. Pp. 306.

THIS volume is the result of a vast amount of observation and study. It is written in a clear, argumentative style. Though we can not agree with the author in his theories and conclusions, still we are interested in their presentation, and in reading the work we obtain very many practical suggestions.

It is divided into six parts: Part I. Hæmoptysis and Pulmonary Consumption.—Clinical Research. Part II. Hæmoptysis and Pulmonary Consumption.—Observations, Opinions, Doctrines. Part III. Hæmoptysis and Pulmonary Consumption.—Treatment. Part IV. Loss of Weight and Pulmonary Consumption.—General Discussion of the Subject.—Two Good Working Hypotheses. Part V. Loss of Weight and Pulmonary Consumption.—Treatment. Part VI. The Functions and Disorders of the Liver in relation to Loss of Weight, Blood-spitting, and Lung Disease, and their Management in accordance with the Results of Modern Discovery.

In a pocket to the cover of the book is a table showing the relation between loss of weight, blood-spitting, and lung disease, in one hundred male cases [*sic*] of hæmoptysis. Other tables are contained in the text, among which is one on pancreatic emulsion, and several others on the diet of consumptives.

The Chemistry of Common Life. By the late JAMES F. W. JOHNSTON. A new edition by ARTHUR HERBERT CHURCH. New York: D. Appleton & Co., 1880. Pp. xxvi.–592.

IT is twenty-five years since this work first appeared, and yet for this quarter of a century it has maintained its popularity, not only on account of its innate worth, but because it is almost the only work on the subject in the English language. It purports to give an elucidation, in popular and non-technical language, of the various chemical processes that are constantly going on around us, processes which should certainly be understood, at least in outline, by every intelligent member of the community. An idea of the scope of the work will be best understood from a few of the chapter headings, such as: "The Air we breathe"; "The Water we drink"; "The Soil we cultivate"; "The Bread we eat"; "The Beef we cook." In addition, chapters on beverages, liquors, sweets, narcotics, poisons, odors pleasant and unpleasant, colors, the chemistry of respiration and of digestion, and the circulation of matter. All of these subjects are dealt with in the most lucid manner, and the amount of useful and interesting matter included explains the popularity the work has so long enjoyed. It is a book that the physician especially will read with pleasure, and may with confidence recommend to his *clientèle.*

The Pathology of Mind. Being the third edition of the second part of the "Physiology and Pathology of Mind," recast, enlarged, and rewritten. By HENRY MAUDSLEY, M. D. New York: D. Appleton & Co., 1880. Small 8vo. Pp. x.–580.

ALTHOUGH nominally only a new edition, this is substantially a new work, being almost entirely rewritten, with large additions; new chapters of special interest treat of "Dreaming," and "Somnambulism and Allied States," and those on the "Causation and Prevention of Insanity" are much amplified. An admirable analytical index contributes much to the convenience and interest of the work, of which, since it is now a standard authority in the matters of which it treats, a more extended analysis here seems unnecessary.

The general interest felt in the subject, the high reputation of the author, and the excellence and lucidity of his writing, will give the work an extensive sale outside as well as within the medical profession.

Deutsch's Letters. A Practical and Grammatical Course for easy and thorough Self-Instruction in the German Language. Prepared with special regard to the close affinity existing between the English and German Languages. By SOLOMON DEUTSCH, A. M., Ph. D., etc. First Course: Grammatical. New York: 1879. Pp. 480.

ALTHOUGH not a medical book, this work ought to be widely made known among physicians, for it embodies altogether the readiest and most thorough method of self-instruction in German that has ever come to our notice; and there are a vast number of medical men who sorely feel the need of being able to read, if not to speak, that language —a language that enshrines the greater portion of the valuable medical literature of our time. Few practitioners of medicine, however, can accommodate their time to a teacher's requirements, but there must be very few indeed who could not, at odd moments, memorize and digest little by little the contents of this book. There are few, too, we may add, whose knowledge of English would not be very decidedly enlarged by it. Dr. Deutsch is most favorably known among physicians in New York, both as a teacher and as a scholar, and we can but add our tribute to the many that have proceeded from those who have made educational methods a matter of special study.

Books and Pamphlets Received.—The Essentials of Anatomy, designed as a Text-book for Students and as a Book of Easy Reference for the Practitioner. By William Darling, M. D., F. R. C. S., etc., and Ambrose L. Ranney, A. M., M. D., etc. New York: G. P. Putnam's Sons, 1880. Pp. xvi.–629. ═══ Cancer of the Rectum; its Pathology, Diagnosis, and Treatment. Including a portion of the Jacksonian Prize Essay for 1876. By W. Harrison Cripps, F. R. C. S., etc. London: J. & A. Churchill, 1880. Sm. 8vo. Pp. viii.–191. ═══ Photographic Illustrations of Skin Diseases. By George Henry Fox, A. M., M. D., etc. Parts 5, 6, 7, and 8. New York: E. B. Treat. 4to. Pp. 8 (each). [Colored plates.] ═══ A Treatise on Oral Deformities as a Branch of Mechanical Surgery. By Norman W. Kingsley, M. D. S., D. D. S., etc. With 350 illustrations. New York: D. Appleton & Co., 1880. Pp. xii.–541. ═══ The Student's Manual of Venereal Diseases, being the University Lectures delivered at Charity Hospital, B. I., during the Winter Session of 1879–'80. By F. R. Sturgis, M. D., etc. New York: G. P. Putnam's Sons, 1880. 12mo, pp. viii.–196. [Price, $1.25.] ═══ A Practical Handbook of Medical Chemistry applied to Clinical Research and the Detection of Poisons. Partly based on "Bowman's Medical Chemistry." By William H. Greene, M. D., etc. Philadelphia: Henry C. Lea's Son & Co., 1880. Pp. 310. ═══ The Principles and Practice of Gynæcology. By Thomas Addis Emmet, M. D., etc. Second edition, thoroughly revised. With 133 illustrations. Philadelphia: Henry C. Lea, 1880. Pp. 875. ═══ Observations on Fatty Heart: comprising Remarks on the Morbid Anatomy, Symptoms and Diagnosis, Prognosis, Etiology, and Treatment. An Essay. By Henry Kennedy, A. B., M. B. (Univ. Dubl.), etc. Dublin: Fannin & Co., 1880. Pp. vi.–171. ═══ Sore Throat: its Nature, Varieties, and Treatment; including the connection between affections of the Throat and other Diseases. By Prosser James, M. D., etc. Fourth edition. Illustrated with hand-colored plates. Philadelphia: Lindsay & Blakiston, 1880. Pp. 318. [Price, $2.25.] ═══ Skin Diseases, including their Definition, Symptoms, Diagnosis, Prognosis, Morbid Anatomy, and Treatment. A Manual for Students and Practitioners. By Malcolm Morris, Joint Lecturer on Dermatology, etc. With illustrations. Philadelphia: Henry C. Lea, 1880. Pp. 320. ═══ The Hair: its Growth, Care, Diseases, and Treatment. By C. Henri Leonard, M. A., M. D., etc. Illustrated by 116 engravings. Detroit: C. Henri Leonard, 1880. Pp. 316. ═══ Headaches: their Nature, Causes, and Treatment. By William Henry Day, M. D., etc. Third edition, with illustrations. Philadelphia:

Lindsay & Blakiston, 1880. Pp. 322. ═══ Our Homes. By Henry Hartshorne, A. M., M. D., etc. Philadelphia: Presley Blakiston, 1880. 12mo, pp. 149. [American Health Primers.] ═══ Health, and Health Resorts. By John Wilson, M. D., etc. Philadelphia: Porter & Coates. Sm. 8vo, pp. 288. ═══ Chest Examination Chart. Designed by Charles Denison, M. D., Denver, Col. ═══ Climatic Map of the Eastern Slope of the Rocky Mountains. By Charles Denison, M. D., Denver, Col. ═══ A Study of some of the Starches. By Mrs. Lou Reed Stowell, M. S. Ann Arbor: 1880. Pp. 17. [Price, 15 cents.] ═══ Transactions of the Obstetrical Society of London. Vol. XXI. For the year 1879. With a List of Officers, Fellows, etc. London: Longmans, Green & Co., 1880. Pp. lxii.–373. ═══ Montreal General Hospital Reports, Clinical and Pathological, by the Medical Staff. Edited by William Osler, M. D., M. R. C. P., Lond. Vol. I. Montreal: Dawson Brothers, 1880. Pp. xxi.–369. ═══ Roosevelt Hospital, New York. Eighth Annual Report, from January 1, 1879, to December 31, 1879. New York: B. Stradley, 1880. Pp. 32. ═══ The Ninetieth Annual Report of the Board of Trustees of the New York Dispensary. January, 1880. ═══ The One Hundred and Ninth Annual Report of the State of the New York Hospital and Bloomingdale Asylum, for the year 1879. ═══ Clinical Notes upon the Use of the Galvano-Cautery. By William A. Byrd, M. D., etc. Pp. 8. [Reprint.] ═══ Strangulated Hernia, with Fæcal Fistula, treated by a New and Simple Enterotome and an Anaplastic Operation. By William A. Byrd, M. D. Pp. 3. [Reprint.] ═══ Reflections upon the History and Progress of the Surgical Treatment of Wounds and Inflammations. A Report on the Progress of Surgery. By Edward Borck, M. D., etc. St. Louis: Hugh B. Hildreth Printing Company, 1880. Pp. 11. [Reprint.—From the author.] ═══ Therapeutic Action of Mercury. Inaugural Thesis read before the Chicago Biological Society, February 4, 1880. By S. V. Clevenger, M. D. Chicago: Knight & Leonard, 1880. Pp. 27. [Reprint.] ═══ Notes on the Anatomical Relations of Uterine Structures. With Surgical Remarks and Therapeutical Suggestions. By T. H. Buckler, M. D. Cambridge: Riverside Press, 1880. Pp. 34. [Reprint.] ═══ New Method of permanently removing Superfluous Hairs. By L. Duncan Bulkley, A. M., M. D., etc. New York: G. P. Putnam's Sons, 1878. Pp. 7. [Reprint.—From the author.] ═══ On the Nomenclature and Classification of Diseases of the Skin, etc. By L. Duncan Bulkley, A. M., M. D., etc. Pp. 15. [Reprint.—From the author.] ═══ The Use of Water in the Treatment of Diseases of the Skin. By L. Duncan Bulkley, A. M., M. D., etc. New York, 1880. Pp. 14. [Reprint.—From the author.] ═══ An Improved Method of treating Depressed Fractures of the Nasal Bones. By Lewis D. Mason, M. D. Pp. 5. [Reprint.] ═══ The Therapeutic Action of Quinine. By J. W. Compton, M. D., etc. Pp. 7. [Reprint.] ═══ On a Case of Molluscum Verrucosum, presenting certain Unusual Features. By James Nevins Hyde, A. M., M. D., etc. [Reprint.]

Clinical Reports.

NEW YORK HOSPITAL.

Reported by Francis H. Markoe, M. D., House Surgeon.

FRACTURE OF VERTEBRÆ.

(Service of Dr. T. M. MARKOE.)

George K., twenty years old, was admitted June 17, 1879. About noon of that day he dived from a platform ten feet in height into water only four feet deep, in a swimming bath, and struck his head against the stone bottom. He was at once taken out of the water in a perfectly helpless state, and was sent to the hospital soon afterward. On admission, he was perfectly conscious, and there was no mental disturbance whatever. There was complete motor and sensory paralysis of all the parts below a line drawn around the body two inches below the nipples. In the upper limbs the action of the flexor muscles predominated to such a degree over that of the extensors as to cause flexion of the fingers and of the forearms upon the arms, which flexion was at once reproduced after manual extension. The hands were clinched. He could abduct the arms, but could not extend them. The movements of the head upon the neck were somewhat restricted, and were accompanied with severe pain. There was no relaxation of the sphincters. No reflex action could be produced in the limbs. There was no perceptible deformity. There were marked pain and tenderness over the sixth cervical vertebra. He was placed on a water-bed, and the bladder was ordered to be emptied three times daily by means of a rubber catheter. *18th.*—He had passed a fair night. The anæsthesia now reached nearly an inch higher than at the time of his admission. He complained of constant and severe pain between the shoulders and in the back of the neck. There was priapism, with emission of semen, without attending sensation. Pulse, A. M., 60, P. M., 80; respiration, A. M., 19, P. M., 20; temperature, A. M., 99°, P. M., 100·6° F. *20th.*—Pulse 70; respiration 28; temperature 100·6°. The level of the anæsthesia was constantly rising, there being now no sensation below a line one inch above the nipples. The breathing was somewhat irregular. The abdomen was swollen and tympanitic. The bladder was ordered to be washed out once every day with a warm solution of salt (one drachm to the pint). The pain in the neck and shoulders was much increased in severity. Morphia was ordered p. r. n. *23d.*—Pulse 64; respiration 28; temperature 102·8°. Decided improvement in his condition was noted. The limit of the anæsthesia had receded nearly two inches, and there was a slight degree of thoracic respiration from the sixth rib downward. For the first time, there was now incontinence of urine and fæces. *25th.*—Pulse 88; respiration 28; temperature 103·6°. He seemed much worse than at any time since admission. There was excruciating pain in the neck and the left arm, relieved only by morphine. The abdomen was still more distended, and the breathing was very irregular and jerky. *28th.*—Pulse 60; respiration 30; temperature 105·6°. He was very restless and slightly delirious, although suffering less pain than for several days before. The urine was turbid, and contained a large amount of phosphates. The limit of the anæsthesia was still higher. The breathing was very labored; the face and eyes were congested; and the skin was very hot and dry. *July 1st.*—Pulse 88; respiration 32; temperature 103°. He was lying in a semi-conscious state, at times mildly delirious; the pulse small; the breathing very labored; the mouth and teeth covered with sordes. *3d.*—Pulse 88; respiration 48; temperature 108·6. There was low muttering delirium, with twitching of the muscles of the face; the pulse was scarcely perceptible, and he seemed to be sinking rapidly. He died at 8.15 A. M. The autopsy showed fracture through the laminæ of the fifth and sixth cervical vertebræ, the spinous processes of which were freely movable; also fracture through the body of the sixth vertebra, without any displacement. The cord was not examined microscopically. [The specimen, prepared and mounted, was recently shown at the Pathological Society by Dr. Peabody, the Pathologist of the Hospital. See the proceedings of that society in the March number of the "Journal."]

CHAMBERS STREET HOUSE OF RELIEF.

Reported by CHARLES H. WILKIN, M. D., House Surgeon.

GUNSHOT FRACTURE OF VERTEBRA.

(SERVICE OF DR. W. T. BULL.)

CATHERINE M., twenty-six years old, born in the United States, and a domestic, was admitted November 5, 1879, with a history of having been shot in the back with a pistol by her husband while endeavoring to escape from him. On admission, she was conscious, but somewhat intoxicated. There was complete paralysis, both of sensation and of motion, below the line of the shoulders. The sphincters were relaxed, and the bladder was empty. Fæces were passed. The pulse was 80, and regular; the respiration 20, and diaphragmatic, there being no expansive movement of the chest. The surface was cool. There was severe pain in the back of the neck, and she complained of a feeling of stiffness in the arms and legs. There was full use of the muscles above the shoulder-line. A pistol-shot wound was found in the back, one inch below and two inches to the left of the seventh cervical vertebra. A probe penetrated only an inch and a half, in an upward and inward direction, toward the vertebral column

Five minims of Magendie's solution of morphine were given hypodermically, and a carbolized dressing was applied to the wound. *6th.*—Pulse, A. M., 80, P. M., 80; respiration, A. M., 28, P. M., 28; temperature, A. M., 102·25°, P. M., 104° F. Her condition was unimproved. A large quantity of ammoniacal urine was removed with a catheter. The hypodermic injection was repeated. A director was passed into the wound, and the opening was enlarged with a bistoury. A No. 10 (E.) sound and a probe were passed down almost to the vertebra, but the exact course of the ball was not made out. The dressing was reapplied. 3 P. M.—The urine was drawn, and an hypodermic injection of five minims of Magendie's solution was given. 7 P. M.—There was great pain, and the hypodermic injection was repeated. *7th.*—Pulse, A. M., 80, P. M., 90; respiration, A. M., 24, P. M., 24; temperature, A. M., 103°, P. M., 103°. No improvement was noted. The breathing was still abdominal; the bowels had not moved. The urine was ordered to be drawn four times daily, and the bladder to be washed out with acidulated water (two drops of nitric acid to a pint of water); five minims of Magendie's solution to be given hypodermically t. i. d. *8th.*—Pulse, A. M., 80, P. M., 90; respiration, A. M., 24, P. M.. 24; temperature, A. M., 102·75°, P. M., 104°. She swallowed with great difficulty, taking milk fl ℥ ij and whiskey fl ℥ ss 2 dâ qu. h., and receiving Magendie's solution ♏v, hypodermically, every sixth hour. Slight movement was noticed in the right leg. *9th.*—Pulse, A. M., 110, 5 P. M., 160, 6 P. M., 160, 7 P. M., 160; respiration, A. M., 32, 5 P. M., 30, 6 P. M., 30, 7 P. M. 30; temperature, A. M., 105°, 5 P. M., 108°, 6 P. M., 108·75°, 7 P. M., 109·5°. She had become worse during the night, and her breathing was more and more labored. In the morning the urine was drawn, and the bladder was irrigated. The dressing was renewed. At 5 P. M. her condition rapidly became worse. She was comatose and cyanosed. She died at 7.02 P. M., from pulmonary congestion and œdema. The autopsy revealed a depressed fracture of the left lamina of the fifth cervical vertebra, with lodgment of a 32-caliber pistol-ball. Beneath the fracture, there was an extravasation outside the dura mater. The cord was pressed upon and decidedly flattened at that situation, but otherwise appeared normal.

CHILDREN'S HOSPITAL, BOSTON.

Reported by J. Foster Bush, M. D.

CLUB-FOOT AND CLUB-HAND.

(Service of Dr. EDWARD H. BRADFORD.)

H., a healthy girl, ten years old, entered the Hospital with a deformity of the right foot and right hand, which was said to be congenital, but which had every appearance of one of paralytic origin, dating from infancy. The foot was in the position of talipes equinus. The heel could not be brought nearer to the floor than two inches; there was no motion at the tibio-tarsal or the middle tarsal articulation. The child walked on the ball of the toes. The hand was distorted in a somewhat similar way. The metacarpal bones were held flexed upon the carpal bones, at a right angle with the axis of the forearm. The fingers were partly flexed; they could be moved at will slightly, but could not be extended. If force was used to extend the metacarpus, it could be done after applying a steady pull, but at the same time the fingers would curl into the palm of the hand. It was not possible to straighten the fingers and the hand at the same time. The right hand and forearm were smaller than the left. The child was otherwise well made and strong.

After consulting with Dr. William Ingalls, the deformity of the foot was corrected by dividing the tendo Achillis and straightening the foot. The heel was immediately brought to such a position that the foot was at right angles with the leg, and a plaster-of-Paris bandage was applied. This was worn four weeks, and the child was then allowed to walk, which she could do on the whole of the foot, bringing the heel perfectly to the ground. At first there was a slight amount of pain in walking; this, however, lasted but a few days.

Under ether, the hand (including the fingers) was forcibly straightened, and bandaged first on a straight splint, afterward in plaster-of-Paris bandages. This occasioned no pain. This bandage was worn three weeks, and on its removal the hand was so straight that it could be laid upon a table with the palm downward in a normal position. There was, however, but little power in the fingers and hand, and when the hand was raised the metacarpus would drop by its own weight toward the palmar surface, there being complete paralysis of the extensores carpi radialis et ulnaris. No resistance, however, was encountered in placing the hand and fingers in a normal straight position. From the condition of the muscles, it seemed evident that the deformity of the hand would be likely to recur unless treatment were continued for a long time.

A similar case is recorded by Dr. Tamplin ("Tamplin on Deformities," American edition, 1846, p. 203). He, however, divided all the tendons on the palmar surface of the wrist; the result does not seem to have been any better than in the case of the child here mentioned. The case deserves to be recorded on account of the infrequency of the deformity of the hand and foot occurring without other evidence of paralytic disturbance; from the fact that the hand was straightened without tenotomy; and that, after division of the tendo Achillis, the divided ends were separated so far and kept separated continuously without preventing the formation of a new tendon. Casts of both hand and foot, taken before and after treatment, have been deposited in the Museum of the Harvard Medical School.

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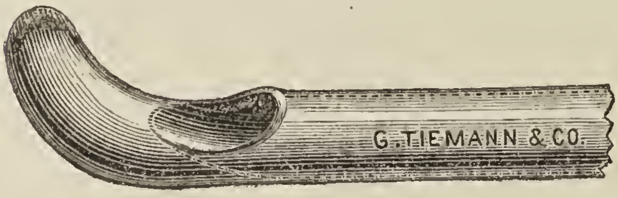
Proceedings of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

A STATED meeting was held February 25, 1880, Dr. T. E. SATTERTHWAITE, President, in the chair.

VESICAL CALCULI.—Dr. F. N. OTIS presented specimens removed from the bladder of a patient with the following history: Eight weeks ago he came to the Clinic, seeking relief from what was supposed to be a deep-seated close stricture of the urethra, caused by a blow received upon the perinæum. A little more than a year previously, while frolicking, he fell upon the back of a chair, and one of the spindles struck him in the perinæum. There was slight bleeding; he had retention, was relieved by the catheter; the urine contained a small quantity of blood. The following day the urine flowed through the wound, and a few days subsequently the wound healed, and he was able to be about again. He experienced no special trouble until about six months afterward, when he began to suffer from frequency of micturition and had some cystitis. It was then supposed that his disease was cystitis, due to a close traumatic stricture. When Dr. Otis examined him, no prominent point of stricture in the urethra was found, but when the sound entered the bladder it immediately struck a stone of rather unusual shape and size. It had a broad, flat surface, and, on subsequent examination, it was determined that the best method for its removal was lithotomy, and, accordingly, the median operation was performed. On introducing the finger into the bladder, a large, flat disk of stone was felt, and, turning the finger upward, it came in contact with a number of mammillated points of the size of a marble. The forceps was introduced, the main calculus crushed, and a portion withdrawn, which was found to contain, as a nucleus, a piece of diagonal cloth. In another portion of the stone another piece of cloth was found. The largest piece had a distinct seam in its center, and the whole piece measured two inches in length, and one in breadth. It was evident that the piece of cloth had been driven from the seat of the pantaloons into the bladder by the chair-spindle which inflicted the wound in the perinæum, and had there formed the nucleus of the calculus. The entire stone weighed 360 grains. The man made a good recovery.

Dr. Otis presented a second specimen, which illustrated how small a foreign body in the bladder might become the nucleus of a calculus. A man, seventy years old, came with symptoms of stone in the bladder, which had appeared within the previous eight or ten months. He had enlarged prostate, and it had been necessary to draw his urine and wash out his bladder regularly for several years. On examination, it was found that he had a small stone, the longest grasp of which was about three quarters of an inch. Bigelow's operation was performed successfully. The first washing brought out a fragment of stone which contained a small piece of broom-straw sticking up in it, and another piece of the straw was found in the *débris* of the stone. In that connection Dr. Otis exhibited *a modification of Bigelow's evacuating tube*, which had worked very satisfactorily in the case just reported, where he used it for the first time. It was a modification for the purpose of securing an easier introduction into the bladder than could be done with Bigelow's original evacuating tube. The difficulty in using a perfectly straight tube was, that it caught in the prostatic urethra, and it was sometimes so difficult to dislodge it, even with the finger in the rectum, that he had been obliged to substitute for it an ordinary curved evacuating tube. Another objectionable point was, the ease with which the mucous membrane was sucked into the end of the tube. In order to remedy these two defects, he had had a tube constructed perfectly straight, like Bigelow's, but with a knob-like extremity, which turned up just sufficient to clear the obstructing point. In the case mentioned, in which there was an enlarged prostate, it was introduced with great ease, without the least halting at the prostate, and he felt satisfied that it would prove of great advantage in performing the operation of litholapaxy.



Spindle-Cell Sarcoma.—Dr. J. A. Wyeth presented a specimen, removed post mortem, which had occupied the region of the left sacro-iliac synchondrosis, principally in the venter of the ilium. The man, when twenty years old, had what he described as a "pimple" on his face, and had it removed by the knife two or three times. When about thirty-five years old it was "burned out" by a cancer doctor, and afterward gave him no special inconvenience. About a year before he died, he fell, and struck upon the left sacro-iliac region, and as a result was partially paralyzed for ten or fifteen days, when he was again able to go about and attend to his work for about six weeks, when he began to suffer from partial paralysis and a burning sensation in the left lower extremity. From that condition he never recovered. About three weeks before death, Dr. Wyeth was called to see him on account of a threatened gangrene, which disappeared under treatment. The patient died, seemingly, of septicæmia. The point of interest in the case was, to decide whether the tumor had a metastatic or a traumatic origin. The growth was twice or three times as thick as the bone itself, and involved the left lumbar and sacral plexuses of nerves. ══ The President thought that the lesion in the periosteum, assuming it to be a sarcoma, was primary. Carcinoma of the bone was very rare as a primary disease. He thought it most probable, from the history of the case, that the disease upon the nose was carcinomatous, and a metastasis from carcinoma to sarcoma was something which was believed by many not to occur. In this opinion he concurred. He had not seen many examples of recurring growths of this latter variety, yet sufficient to show that the lungs, the liver, and the spleen were liable to be involved, especially where the original growth sprang from the periosteum. ══ Dr. J. H. Ripley referred to two cases. In the first, a spindle-cell sarcoma removed from the side of the spine, in the dorsal region, began to return in about three months; at the end of two years was of about the same size as before the operation; was again removed, and at the end of the next three months the man began to complain of pain in the side, and soon gave the physical signs of enlarged spleen, and died in a cachectic condition. He had no knowledge of an autopsy, if one was made. In the second case, the tumor recurred more slowly. Eighteen years before coming to the hospital the patient had a breast removed, and on admission she complained of her right lung. At the autopsy it was found that the lung had been invaded by malignant disease.

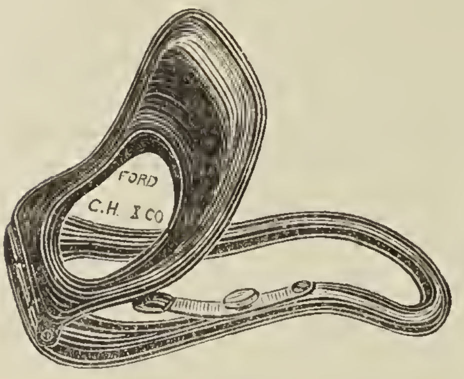
Thrombosis of Basilar and Sylvian Arteries.—Dr. Ridlon presented a heart showing thickening of the aortic valves, with insufficiency, thickening of the mitral valve, and marked stenosis. The patient, a woman, æt. thirty-six, was admitted to St. Luke's Hospital on the 26th of December, 1879, complaining of palpitation and some pain in the precordial region, from which she had suffered more or less for five years. She had never had rheumatism. There was a double aortic murmur, and it was believed by some of the examiners that there was also a double mitral murmur. The urine, on admission, contained about 50 per cent. of albumen. There had been no œdema of the extremities at any time, and the patient was in fair condition, except for shortness of breath. She suddenly became paralyzed in the left arm, the left leg, and the left side of the face, the external rectus of the left eye and the internal rectus of the right eye. At the end of twenty-four hours she became comatose, and at the end of forty-eight hours she died. At the autopsy, the right kidney was found to be small, its capsule adherent, its surface granular, and it contained a few cheesy deposits. The left kidney was physiologically hypertrophied, and contained a few small cysts and one small cicatrix. The membranes of the brain were apparently normal. In the basilar artery was found a soft red thrombus which could be easily detached. The left Sylvian artery was free, while the right one had a thrombus beginning at the division of the artery into its anterior and posterior branches. Just opposite the optic thalamus was a small spot of red softening; and just opposite the corpus striatum was a small spot of gray softening, four or five centimetres in diameter. It was supposed that the thrombus contained an embolus, although none could be found.

Epithelioma of the Rectum.—Dr. Otis presented a specimen removed from the rectum of a man aged seventy-four years, who had had a dense, nodulated epithelial growth, first noticed about a year previously, occupying the concavity of the rectum, extending from just within the sphincter ani about three and a half inches upward, and being about two inches in breadth. Before the operation, the patient discharged pus and blood freely from the rectum, and the discharge was exceedingly offensive. After the mass was removed, the discharge lost its characteristic offensive odor, and the pain, which had been very severe, was entirely removed. The healing progressed favorably. At the end of the third week cicatrization was almost completed, and the patient had walked a little more than a mile, to the doctor's office, without discomfort. He had gained several pounds in weight, and was in excellent spirits. Microscopic examination of a portion of the growth was made previous to the performance of the operation. In this specimen nests of cells were found, characteristic of epithelioma.

NEW YORK OBSTETRICAL SOCIETY.

A stated meeting was held March 2, 1880, Dr. William T. Lusk, President, in the chair.

Serres-Fines for Lacerations of the Perinæum.—Dr. H. J. Garrigues exhibited an improved form of serres-fines for uniting perineal lacerations. ═══ Dr. C. S. Ward thought serres-fines could not possibly accomplish the restoration of the perineal body. ═══ Dr. P. F. Mundé remarked that it was true that the perineal body might be restored while the parts were held in apposition by means of serres-fines. He thought, however, that the ease with which they slipped was a fatal objection to their general use. ═══ Dr. Skene thought that failure to secure union was not so much from inability to keep the wound properly closed as from other causes. ═══ The President alluded to the powerful action of the transverse perinei muscles in keeping the edges of the wound apart. ═══ Dr. Garrigues remarked that a portion of the levator ani muscle entered the perineal body and, more than any other, drew the edges of the wound apart.



Modification of Thomas's Anteversion Pessary.—Dr. J. E. Janvrin exhibited an instrument modeled after the anteversion pessary devised by Dr. Thomas several years ago. The modification consisted in the addition of a bulb, to which a spring was attached that crowded it high up between the cervix and the bladder, and not only kept the uterus in position, but, in a short time, produced retroflexion. In answer to a question, whether the spring did not cause irritation, he referred to one patient, who accidentally wore one of the instruments for three months, yet without harm. ══ The President referred to a case in which a Thomas anteversion pessary was accidentally worn for over a year, and became so imbedded in the tissues that it was with very great difficulty that it could be removed. ══ Dr. Skene objected to jointed pessaries because of their special liability to become foul.

Dermoid Cyst.—Dr. H. T. Hanks reported a case in which a dermoid cyst was tapped twice without any unfavorable symptoms following. ══ Dr. E. Noeggerath remarked that doubtless in exceptional cases a dermoid cyst might be tapped and complete relief and recovery follow without unfavorable symptoms. Such, however, was not the rule; for, in a large majority of cases in which tapping had been followed by fatal result, the cyst was dermoid.

Post-Partum Collapse without Apparent Cause.—Dr. J. F. Jenkins reported a case in which a woman began her sixth labor at about one o'clock, and progressed normally, taking chloroform kindly, during the last three hours before the delivery of the child, which was followed promptly by the placenta, and with only slight loss of blood. At the end of about an hour the uterus, which at first was rather large, had been, under compression, reduced to about the usual size. It was noticed, however, that the woman was very feeble and pale, and that she began to exhibit to a marked degree the signs of internal hæmorrhage; but neither the uterus nor the vagina contained any clots, and there was no recognizable laceration. Brandy, by the mouth and hypodermically, was administered freely, together with morphine, and yet, at 9 a. m., three hours after the birth of the child, it seemed as if the woman must die; but four ounces of brandy was given at one draught, and she began to rally, and from that time she made a good and rapid recovery.

Thrombosis of the Pulmonary Artery; Placenta Prævia without Hæmorrhage.—Dr. J. W. McLane reported a case in which a primipara went to full term without hæmorrhage, and then labor began with rupture of the membranes. The presentation was of the vertex, the head not lying against the cervix with any force, and at the first examination placenta prævia lateralis was recognized, the edge of the placenta being distinctly felt. There was absolutely no hæmorrhage either before or during labor, which was completed by the use of the forceps, because of the somewhat exhausted and anæmic condition of the woman. The delivery was easy. The child weighed six and three quarters pounds. The placenta was delivered naturally. The woman did very well for three days, when suddenly she threw up her arms, called for fresh air, struggled for breath, and in a few moments expired. Probably death was produced by either thrombosis of the pulmonary artery, or the formation of a clot in the right side of the heart. There was no thrombosis of the peripheral veins. It seemed to be a case in which the accident occurred suddenly and without anything in the history to give warning. There was nothing to decide whether it was a case of thrombosis or of embolism, other than the fact that the recorded results of autopsies showed that thrombosis occurred early after delivery, while embolism did not usually take place earlier than the nineteenth or twentieth day. ═══ Dr. Mundé referred to a case which he regarded as one of thrombosis of the pulmonary artery, although death did not occur until three weeks and two days after the birth of the first child. The woman was attended by her mother. The after-birth came away naturally, and she went on nursing her child. On the eighth day she was taken with labor-pains, and gave birth to another child, and expelled a putrid placenta. With the second labor profuse hæmorrhage occurred, and continued for some time. Dr. Mundé was called on account of a febrile attack, and diagnosticated pleurisy. The patient was exceedingly anæmic, and her complexion was waxy. At his fourth visit, in view of the temperature, pulse, respiration, and general condition of the patient, he gave an unfavorable prognosis. A few hours afterward she rose up in bed, leaned over to one side, and fell back dead. ═══ Dr. McLane asked for the experience of the Society relative to the frequency of placenta prævia lateralis without hæmorrhage. ═══ The President had seen such cases with only very slight hæmorrhage. ═══ Dr. Barker's observation had led him to think that severe hæmorrhage was not common in that class of cases. ═══ Dr. McLane remarked that some of the worst cases of hæmorrhage reported had occurred with that condition of placenta.

Obstructed Labor after Operation for Lacerated Cervix.—Dr. Janvrin had been called to see a woman in consultation with Dr. Winters. She was thirty-six years old, a multipara, and had been in labor twenty-four hours, with very powerful pains, and the cervix had only a pin-hole opening. . Two years previously she had been operated upon for lacerated cervix. The hot douche was used without avail. Chloroform was given, and Dr. Janvrin introduced a bistoury and incised the cervix on both sides. Aided by the fingers, dilatation went on. At the end of half an hour the forceps was applied, and the woman was delivered of a dead child. The special point of interest in the case was the nearly complete closure of the cervix by the operation two years ago, and so firmly that it obstructed labor. It was the only case of the kind that he had seen.

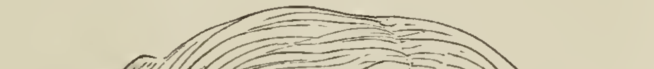
Puerperal Insanity complicated with Ovarian Cyst.—Dr. Noeggerath had been called, in consultation, to visit a woman who, four months ago, had been delivered of a child, and since labor had been morose and shy, would not speak without being spoken to—in short, presented the characteristic symptoms of the melancholic type of puerperal insanity, which had been diagnosticated by her attending physician. She had an ovarian cyst, of about the size of a uterus at full term, a vaginal temperature of 100° F., and a pulse of 120. It had previously been learned that the contents of the cyst were purulent. It was decided to remove the cyst at once, and the patient was removed to Mt. Sinai Hospital. The blood was examined by the House Surgeon, who found that the corpuscles were uniformly crenated. The contents of the cyst were found to be purulent and exceedingly offensive. The pedicle was ligated and dropped, great care being taken to exclude every drop of the cyst-fluid from the peritoneal cavity. Subsequent examination showed that the blood-corpuscles were uniformly loaded with bacteria. As soon as the patient came out from under the influence of the chloroform, it was found that she was perfectly rational. She had a sharp attack of septic peritonitis, which yielded promptly to subcutaneous injections of quinine and carbolic acid, and a single dose of thirty grains of quinine by the rectum. The interest in the case centered in the facts that the insanity disappeared immediately after the removal of the cyst, and that the septic peritonitis yielded upon the administration of one large dose of quinine. He thought that the infecting element that, in this case at least, produced the melancholia was the peculiar condition of the blood-corpuscles; hence the propriety of examining the blood carefully in all cases of puerperal insanity. ═══ Dr. Janvrin asked how such sudden recovery could occur, if the disease were due to a septic condition of the blood? ═══ Dr. Noeggerath replied, that a complete answer could be given only after thorough investigation, but the fact existed, and it was not so extraordinary as might seem; for, as soon as the focus of infection was removed, the blood might at once resume a more normal condition. ═══ Dr. Ward remarked that he had not seen notable reduction of high temperature produced by quinine after ovariotomy, unless a malarial element existed. ═══ Dr. Skene had seen several cases in which he had been quite convinced that the insanity was due to septicæmia. He thought that blood-poisoning might produce melancholia, and that the sudden restoration of reason in Dr. Noeggerath's case was not so unusual that it could not be traced to the removal of the cause of the difficulty. ═══ Dr. Noeggerath thought that it would be specially important in the future to examine the blood, not in the acute cases where the septic element was recognized, but in the chronic cases, for which no explanation had yet been given. [Note by Dr. Noeggerath.—After this case was related to the Society, the patient kept on doing well for about ten days, when she gradually returned to her former state of melancholia, the pulse increasing in frequency up to 130, and the temperature rising to 102° or 103° F. After she had been in this condition for several weeks, she was again, at the end of April, put under the influence of chloroform for an hour. The pulse, which was 140 before the anæsthesia commenced, gradually came down to 90. When she awoke, after a couple of hours, she was as rational and lively as after the first operation, and has remained so up to the present day (April 13th). From this it appears that it was not the removal of the cyst which influenced her brain, but merely the use of chloroform.]

NEW YORK SOCIETY OF GERMAN PHYSICIANS.

A stated meeting was held March 26, 1880, Dr. H. J. Garrigues, in the chair.

Extraction of Foreign Body from Eye through a Flap-Section of the Sclerotic.—Dr. Knapp presented a young man on whom he had performed sclerotomy of the right eye thirty days previously for the removal of a piece of steel that had become imbedded in the ciliary body seven months ago. When first seen, the patient presented inflammatory symptoms involving the uveal tract and retina, referable, as revealed by the ophthalmoscope, to the presence of a foreign body of black color and shining edges on the inner margin of the ciliary body. The circumstances of the case demanded enucleation of the eye, neurotomy, or extraction of the foreign body, which latter course was finally decided upon. An incision three lines in length was made in the sclerotic, along the lower margin of the internal rectus muscle, and an electro-magnet, connected with an ordinary galvanic battery, was brought in contact with the foreign body, but did not succeed in withdrawing it. A blunt-pointed hook and finally a curved anatomical forceps were introduced with like result. As the location of the foreign body was accurately known, a second incision was made in the sclerotic at right angles to the first; the flap thus formed was turned outward so as to bring the piece of steel into view, and the same was excised from the ciliary body, in which it had become encapsulated. A small quantity of vitreous escaped during this manœuvre. The scleral wound was closed with two fine silk sutures, and healed entirely by first intention. All pain ceased; the blood effused into the vitreous was slowly absorbed; the eyeball, at first soft, gradually regained its normal tension, and the patient could at present count fingers at a short distance. [The foreign body and the electro-magnet were then exhibited.] ═══ Dr. Gruening remarked that he had for some time been devoting attention to the construction of a magnet that would serve for the extraction of iron and steel particles from the interior of the eye. The instrument presented by Dr. Knapp could not be accepted as that of Hirschberg, the latter being a simple electro-magnet. The one shown by Dr. Knapp, on the other hand, displayed magnetic power after the galvanic current ceased, inasmuch as the core was a permanent magnet, as was demonstrated by Dr. Knapp at the meeting. The circumstance that this permanent magnet was connected with a battery did not change the facts, and did not make the instrument an electro-magnet. The instrument employed by Hirschberg was an electro-magnet, whereas Gruening's apparatus consisted of a permanent magnet armed with a point of soft iron thirty millimetres in length, and not exceeding one millimetre in thickness. The usefulness of this instrument lay in its construction on the principle of Coulomb's magazine; he had thus devised an instrument which, without requiring an electric battery or other incumbrance, combined compactness and convenience of form with the power of a strong, permanent magnet, and that, while simpler in construction, accomplished all that Hirschberg's instrument did. Thus, when tested, Gruening's magnet lifted a key weighing 7·5 grammes, and easily extracted an iron chip weighing 25 centigrammes from the vitreous humor of the recently enucleated eyeball of an animal.

Rhinoplasty.—Dr. Gerster presented a case in which he had successfully performed partial rhinoplasty. The defect, following destruction of the soft parts of the right side of the nose by lupus, included the ala nasi, and was covered by a curved flap four and a half inches long by one inch wide, taken from the right side of the forehead, the incisions being carried from the root of the nose to the margin of the hairy scalp in the right temporo-parietal region. The lower margin of the flap was rolled in so as to resemble the margin of the nostril. The root of the flap formed a bridge about one inch long, spanning the healthy skin of the glabella, and was removed three weeks after primary union had resulted in the edges of the transplanted flap.



Ligation of External Iliac Artery for Femoral Aneurism.—Dr. Gerster presented a case in which he had ligated the external iliac artery for an aneurism of the femoral artery, of the size of a small fist, that was rapidly increasing in circumference. The patient, a man forty-six years of age, had contracted syphilis five years previously. About fifteen months ago, while rowing in a heavy boat, he lost his balance, and, in trying to save himself from falling over backward, he involuntarily made a sudden and violent exertion. Some days later he felt a distinct pulsation behind Poupart's ligament, and noticed a swelling in that region, which gradually increased in size. He soon began to run down generally. When admitted to the German Hospital, on the 3d of January, he was very anæmic, and presented an aneurism at the point of junction of the external iliac with the femoral artery. The strongly pulsating tumor had crowded Poupart's ligament upward and forward. Compression by a pole, according to Esmarch's method ("Surgeon's Handbook," p. 156), was unsuccessfully practiced with short intervals for eighty hours. Considerable œdema of the surrounding soft parts and swelling of the lymphatic glands, with fever, supervened, and the attempt was abandoned. On the 17th of January the external iliac artery was ligated. Owing to the size of the tumor, the extent of the diseased portion of artery in a central direction could not be accurately determined. Mott's incision, as for ligature of the internal iliac artery, was practiced, and the artery was freely exposed and tied with a carbolized E string. The wound was superficially drained, and was closed with sutures and antiseptic dressings. Union resulted, excepting at the points of drainage, without febrile reaction, by the first intention. Collateral circulation was promptly established, the patient left his bed on the 17th of February, and was now again at work at his trade. At the site of the aneurism a hard, firm, shrunken cord, of about the thickness of the little finger, could be felt; the patient's general condition was eminently satisfactory.

Sarcoma of Kidney.—Dr. Jacobi exhibited a solid sarcoma of the kidney, of the size of a man's head, probably congenital, which had been removed post mortem from the body of a child three years and eight months of age. Certain conditions of the urine had pointed to the kidney as the seat of the disease, which was assumed to be a sarcoma, as, in spite of the immense size of the tumor, the general condition of the child had remained remarkably good until within a short period before death, a rare occurrence in carcinosis. The presence of empty and flattened coils of intestine on the surface of the tumor could not be elicited by percussion, a circumstance that called for extreme caution in the use of the trocar for exploratory purposes. He had lost a child by fatal peritonitis, resulting from the accidental wounding of the transverse colon while puncturing a sarcoma of the kidney. In his experience, the sensation of fluctuation in these tumors was, in most cases, decidedly deceptive. The other kidney was normal in size and structure. ═══ Dr. Wendt had met with a very similar condition at the post mortem of a man who had died of sarcoma of the kidney, but the healthy kidney had been found enlarged to three times its natural size. ═══ Dr. Zinsser recalled an almost identical case, that had occurred in the practice of the late Dr. Krackowizer, that of a child four and a half years of age, which had at the time attained some notoriety through the sudden death of the patient while under the influence of chloroform, preparatory to a thorough examination.

Optico-Ciliary Neurotomy.—Dr. Knapp referred to his remarks on optico-ciliary neurotomy at the last meeting, and wished to add that he had since then seen cases recorded by Schöler and Mauthner-Jäger, in which the occurrence of reunion of the divided nerve-ends had been anatomically demonstrated. ═══ Dr. Gruening had removed a myxoma of the optic nerve, together with a portion of the nerve itself, in 1875. He had quite recently seen the patient again, and had found the cornea still completely anæsthetic. He therefore suggested that neurectomy, the excision of a portion of the nerve trunk, should be substituted for neurotomy in the cases referred to.

Cerebral Hæmorrhage.—Dr. Jacobi reported the clinical history and the results of the post-mortem examination of a case of profuse cerebral hæmorrhage. The patient had for a number of years been an occasional sufferer from violent headaches and attacks of stupor, and auscultation had revealed the existence of a moderate mitral systolic murmur. At 4 p. m. the patient became unconscious, and was seized with convulsions, at first of a mild but afterward of a violent type, commencing with dilatation of the pupils, vacant stare of the eyes, and moderate distortion of the features. In the intervals between the attacks consciousness returned, and no peripheral paralytic symptoms could be detected. Embolism was excluded, because the mitral murmur still persisted unchanged. Some improvement was manifested between the hours of 9 and 12 that evening, during which time the convulsive seizures entirely ceased. At about 12 o'clock the patient was again seized with violent convulsions, which followed rapidly upon one another, and he died at 1.30 a. m., without having regained consciousness. Post-mortem examination revealed chronic meningitis of the cerebral surface, and an immense hæmorrhage that seemed to have started from the posterior horn of the left hemisphere, and to have invaded the left lateral ventricle, thence breaking into the right, both of which were filled with partially coagulated masses of blood. The brain substance was broken down in many places. Dr. Welch had made a microscopic examination, and had found fatty degeneration and miliary aneurisms of the smaller vessels of the brain. Judging by the clinical history and the results of the autopsy, it might be assumed that the hæmorrhage into the posterior horn had affected the sensory nerve-fibers chiefly, thus causing reflex convulsions, and that the nerve-fibers of the intellectual centers, being seated more anteriorly, escaped injury, thus accounting for the preservation of the intellectual functions during the intervals between the convulsions prior to 9 p. m. About this time the blood had forced its way into the ventricles, thus relieving the brain substance forming the posterior horn of considerable tension for a time, to which might be ascribed the total cessation of the convulsions for three hours. The gradual distention of the ventricles with blood, and the consequent general compression of the brain, had soon caused the fatal termination.

Dr. A. G. Gerster, *Secretary.*

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Reports on the Progress of Medicine.

QUARTERLY REPORT ON SURGERY.

No. II.

By CHARLES B. KELSEY, M. D.,
SURGEON TO THE EAST SIDE INFIRMARY FOR DISEASES OF THE RECTUM.

1. Baker, A. E. J.—A lecture on the dry cotton-wool permanent dressing in amputations. "Br. Med. Jour.," Jan. 3, 1880.
2. Oberst, M.—Der Einfluss des Alters auf den Verlauf der Amputationen. "Centralbl. für Chir.," No. 2, 1880.

3. Gamgee, S.—Absorbent and medicated surgical dressings. "Lancet," Jan. 24, 1880.
4. Schulz, H.—Das Eukalyptusöl ein ungiftiges Surrogat für die Karbolsäure. "Centralbl. für Chir.," Jan. 24, 1880.
5. Extirpation of the kidneys. [Editorial] "Br. Med. Jour.," Jan. 31, 1880.
6. Barker, A. E.—Nephrectomy by abdominal section. Case; with remarks and discussion. (Trans. Royal Med. and Chir. Soc.) "Lancet," Mar. 13, 1880.
7. Roddick, T. G.—Caries of atlas and axis—retro-pharyngeal abscess. A case illustrating the necessity for caution in the application of the plaster jacket. "Montreal Genl. Hosp. Rep." vol. i., 1880.
8. Kraske, P.—Ein Fall von doppelseitigen Hodensarkom. "Centralbl. für Chir.," Jan. 17, 1880.
9. Stimson, L. A.—Mr. Lister's antiseptic method. "Archives of Medicine," Feb., 1880.
10. Smith, J. G.—Two cases of successful operation for extrophy of the bladder by a new method. "Br. Med. Jour.," Feb. 7, 28, 1880.
11. Koelliker, Th.—Ein Fall von Sehnennaht. "Centralbl. für Chir.," No. 6, 1880.
12. Chambard, E.—Du carcinome primitif des ganglions lymphatiques. "Rev. Mens. de Méd. et de Chir.," Feb. 10, 1880.
13. Féré, Ch.—Contribution à l'étude de la pathogénie et de l'anatomie pathologique du céphalæmatome. "Rev. Mens. de Méd. et de Chir.," Feb. 10, 1880.
14. Senn, N.—Spontaneous osteo-myelitis of the long bones. "Chicago Med. Jour. and Exam.," Jan., 1880.
15. Lidell, J. A.—On fractures of the cranial bones. "Amer. Jour. Med. Sci.," Jan., 1880.
16. Holmes, T.—A case of femoro-popliteal aneurism, which had been laid open by mistake, and in which the old operation (that of Antyllus) was performed. "Br. Med. Jour.," Jan. 10, 1880.
17. Sands, H. B.—Attempted reduction of a dislocation at the shoulder-joint of seven or eight weeks' standing; rupture of the axillary artery. "Med. Record," Jan. 10, 1880.
18. Heath, C.—Case of aneurism of the subclavian artery treated by amputation at the shoulder-joint and the introduction of needles into the sac—with remarks. "Med. Times and Gaz.," Feb 7, 1880.
19. Walser, W. C.—Tracheotomy in membranous laryngitis. "N. Y. Med. Jour.," Mar., 1880.
20. Kelsey, C. B.—External rectotomy as a substitute for lumbar colotomy in the treatment of stricture of the rectum. "N. Y. Med. Jour.," Mar., 1880.
21. Hutchinson, W.—A rare case of intestinal obstruction of thirty-nine days' duration; recovery. "Lancet," Jan. 3, 1880.
22. Lawson, G.—Carcinoma of the rectum in young adults: remarks. "Lancet," Jan. 3, 1880.
23. Vidal, E.—Traitement du prolapsus rectal par les injections hypodermiques d'ergotine. "Tribune Méd.," Feb. 8, 1880.
24. Davis, W. B.—Intestinal obstruction, with a report of six cases. "Boston Med. and Surg. Jour.," Feb. 26, 1880.
25. Fiorani, G.—Sulla dieresi mediante il laccio elastico. "Gazzetta degli Ospitali," Feb. 15, 1880.
26. De Agostini.—Di un' intossicazione per l'uso chirurgico dell' acido fenico. "Gazzetta degli Ospitali," Feb. 1, 1880.
27. Bert, M. P.—Anæsthésie chirurgicale au moyen du protoxyde d'azote. "Tribune Méd.," Feb. 29, 1880.

28. Spence, J.—Surgical statistics. "Br. Med. Jour.," Jan. 24, 1880.

29. Lister, J.—Mr. Spence on surgical statistics. "Br. Med. Jour.," Feb. 14, 21, 1880.

30. Cheyne, W. W.—Professor Spence on surgical statistics. "Br. Med. Jour.," Feb. 14, 1880.

31. Spence, J.—Statistics of antiseptic surgery. "Br. Med. Jour.," Feb. 14, 1880.

32. König.—Der Thoraxgipsverband bei Frakturen der Wirbelsäule. "Centralbl. für Chir.," Feb. 14, 1880.

33. Bergmann, E.—Indirekte Schussfrakturen der Schädelbasis. "Centralbl. für Chir.," Feb. 21, 1880.

34. Coosemans, E.—Enlèvement d'un kyste par le procédé du Dr. Pozzi. "Jour. des Sci. Méd. de Louvain," Feb., 1880.

35. Ingals, E. F.—The early treatment of burns and scalds. "Chicago Med. Jour. and Examiner," Mar., 1880.

36. Sprengel, O.—Ueber die seitlichen, unvollständigen Elbogengelenks-Luxationen. "Centralbl. für Chir.," Feb. 28, 1880.

37. Riedinger.—Ueber das Auftreten von Scharlach bei Operirten und Verwundeten. "Centralbl. für Chir.," Feb. 28, 1880.

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40. Moore, E. M.—Three cases illustrating luxation of the ulna in connection with Colles's fracture. "Med. Record," Mar. 20, 1880.

41. Markoe, T. M.—"Through drainage" in the treatment of open wounds. "Amer. Jour. of Med. Sci.," Apr., 1880.

42. Arloing, Cornevin, and Thomas, O.—Recherches expérimentales sur la nature de l'affection appellée charbon symptomatique. "Lyon Méd.," Feb. 1, 8, 1880.

43. Neilson, J. L.—Central myxo-sarcoma of the right superior maxilla; removal of entire maxilla and portion of malar bone. "Amer. Jour. Med. Sci.," Apr., 1880.

44. Heath, C.—Treatment of popliteal aneurism by Esmarch's bandage; with discussion (Clinical Soc. of Lond.). "Lancet," Feb. 21, 1880.

45. Warren, J. C.—The treatment of irreducible hernia. "Boston Med. and Surg. Jour.," Mar. 18, 1880.

46. Frank, F.—Les méthodes de réfrigération employée dans un but thérapeutique. "Gaz. Hebdom. de Méd. et de Chir.," Mar. 5, 1880.

47. Boeckel, E.—De l'emploi du catgut pour les ligatures d'artères dans la continuité. "Gaz. Hebdom. de Méd. et de Chir.," Feb. 27, Mar. 5, 1880.

48. Shurley, E. L.—The galvano-cautery as a therapeutical measure in chronic nasal and naso-pharyngeal catarrh. "St. Louis Med. and Surg. Jour.," No. xxxviii., 1880.

49. Zuckerhandl.—Zur Anatomie und Pathologie der Nasenhöhle. "Wien. med. Bl.," iii., 1880.

50. Sommerbrodt.—Beiträge zur Pathologie des Kehlkopfs. "Breslau. aerztl. Ztschr.," ii., 1880.

51. Stoerk, C.—Therapeutische Aphorismen über Kehlkopfkrankheiten. "Wien. med. Bl.," iii., 1880.

52. Brackett, J. E.—Subcutaneous injections of carbolic acid in erysipelas. "Therapeutic Gaz.," Mar., 1880.

53. Morisani, D.—Di un nuovo goniometro ad uso chirurgico. "Giorn. Internaz. delle Scienze Med.," N. S., Anno I., fasc. 10, 11, 12.

54. Morra.—Su di un carcinoma primitivo della trachea. "Giorn. Internaz. delle Scienze Med.," N. S., Anno I., fasc. 10, 11.
55. Massei.—La varie forme della tubercolosi laringea. "Giorn. Internaz. delle Sci. Med.," N. S., Anno I., fasc. 12.
56. Sands, H. B.—Cancer of the larynx; successful removal; malignant disease of the supra-renal capsules, kidney, and ureter. (Report of N. Y. Surgical Soc.) "Med. Record," Jan. 10, 1880.
57. Roddick, T. G.—Popliteal aneurism cured in one hour and forty minutes by a modification of the Esmarch method. "Montreal Genl. Hosp. Rep.," vol. i., 1880.
58. Roddick, T. G.—Case of occipital meningocele treated by seton, with antiseptic precautions. Death. "Montreal Genl. Hosp. Rep.," vol. i., 1880.
59. Lange, F.—Extirpation of larynx. (Report of New York Pathological Soc.) "Med. Record," Feb. 28, 1880. (With discussion.)
60. Smith, H.—Clinical remarks on the use of the clamp and cautery in the treatment of hæmorrhoids and prolapsus. "Lancet," Mar. 13, 1880.
61. Duret.—Recherches sur la pathogénie des hémorrhoïdes. "Arch. Gén. de Méd.," Dec., 1879, Jan., Feb., 1880.
62. Farrar, J. N.—Radical treatment of alveolar abscess. "Proceedings Med. Soc. County of Kings," Apr., 1880.
63. Weir, R. F.—Remarks on a fatal result from the use of the elastic bandage in the treatment of a popliteal aneurism. "Arch. of Med.," Apr., 1880.
64. Warren, J. H.—Cases of hernia operated on for radical cure by injecting the hernial rings. "Med. and Surg. Reporter," Mar., 1880.

4. After referring to the *dangers of carbolic acid poisoning* which necessarily attend Lister's method, Schulz offers, on purely theoretical ground, and without having tried it in surgical practice, the oil of eucalyptus as a substitute for carbolic acid. He believes that in this substance an antiseptic is offered which possesses the four cardinal virtues necessary to supersede the other: (1) antiseptic properties; (2) convenience; (3) cheapness; (4) harmlessness. With regard to its power, he refers to the experiments of Bucholtz, according to whom a solution of the oil of eucalyptus, in the proportion of 1 : 666·6, prevented the development of bacteria, as well as did carbolic acid in the proportion of 1 : 200; also to those of Siegen, showing its power against septic fever artificially produced in dogs by the injection of pus; and to the work of Binz, showing the action of the oil in preventing the wandering of the white blood-corpuscles from the vessels, and as an agent against suppuration. It prevents putrefaction; blood mixed with it, in the proportion of 1 : 300, remaining after ten days completely odorless. With regard to its convenience, the oil made from the leaves, either crude or refined, has an agreeable odor, dissolves readily in alcohol or oil, and mixes freely and perfectly with paraffin. It is cheap, as the tree grows in large forests in Australia, and may be cultivated in the temperate zone. Lastly, and most important, it is harmless. Siegen took 5 grammes of the refined oil (eukalyptol) in the course of two hours and a half without the least harm; and the author injected subcutaneously 4·5 grammes into a small dog without producing any symptoms. For comparison, parallel experiments were made with the oil and the acid, in which 3 decigrammes of the acid, subcutaneously injected, caused death in a dog, while the same quantity of the oil was absolutely harmless to a much smaller animal, and did not cause abscess. He therefore finds in eucalyptus all that could be desired theoretically. The wound may be covered with lint soaked in a ten per cent. solution of the oil in olive oil,

and over this may be placed a gauze made with paraffin, similar to the carbolic gauze, except that fifty per cent. of the oil is used instead of the acid. It makes a sufficiently fine and permanent watery emulsion for use in any spray apparatus.

5, 6. A review of Czerny's paper on *nephrectomy*, published in the "Centralbl. für Chir.," 1879, and an attempt to point out the indications which should decide the operator in his choice between abdominal and lumbar nephrectomy. Czerny's two cases are briefly reported: one, a large cancerous kidney, the removal of which was attempted by laparotomy, and in which a ligature was put around the aorta, the patient surviving ten hours; the other, a case of pyonephrosis, operated on by the lumbar method, with a good result. Zweifel's case of uretero-uterine fistula (the eighth of this affection on record), in which the kidney was extirpated with a good result, and Martin's successful case (Langenbeck's "Archiv," 1879, Band xxiii., 3), are also referred to. The extra-peritoneal operation is, *cæteris paribus*, the less serious, and is preferable when the kidney is fixed and not too large; the peritoneal is indicated in floating tumors, and perhaps also in very large fixed ones, though this point remains to be decided. Czerny has modified Simon's original incision by making it further forward, at the anterior border of the quadratus lumborum, and, when necessary to give greater room, by excecting as much as possible of the eleventh rib without opening the pleural sac, avoiding the peritonæum by working under the periosteum. By this means the whole hand may be passed into the wound, and the ligature of the pedicle greatly facilitated. ═══ Mr. Baker's paper, read before the Royal Med. and Chir. Society, is an exhaustive review of these cases as far as he has been able to collect them, with the report of one operation for cancer of the kidney by himself, in which the patient died from pulmonary thrombosis, the site of the operation being in good condition. [For a valuable collection of these cases, and others of operations on the kidneys, see also "Annals of the Anat. and Surg. Soc.," vol. i., 1878–'9.]

7. In this case a *plaster-of-Paris splint* was applied from the shoulders to the back of the head, to give immobility to a diseased spine. During the time required for its application the patient occupied the sitting posture, and chose for himself the position of the head and neck which appeared most comfortable. Within ten minutes he became deeply livid, respiration ceased, and the pulse stopped. The bandages were rapidly removed, and after artificial respiration for fifteen minutes he again showed signs of life, but the respiration was entirely abdominal, and there was complete loss of motion and sensation from the head down. After half an hour, he could move the left toes slightly. As he lay in bed, plaster was poured around his head and neck to prevent all motion, and in the course of twenty-four hours motion had returned in the upper extremities, with some control over the bladder and rectum. Three days later an attempt was made to move him to a water-bed, but, though done with the utmost care, he again lost consciousness, and was completely paralyzed, as before, though without the lividity and disturbance of the heart and respiration. This condition remained nearly unchanged for a month, when, on making another attempt to move him in bed, he again became paralyzed, and suddenly expired. *Autopsy.*—Among other changes, "Atlo-axoid ligament destroyed on right side . . . the odontoid process out of place and encroaching on the posterior arch of the atlas, compressing the cord on the right side . . . transverse and check-ligaments completely gone, and process freely movable backward and forward . . . occipito-axoid ligament also destroyed . . . upper segment of cord, on a level with adontoid process, a little compressed, particularly on the right, and slightly softer." The author says "this case illustrates the great necessity for caution in the application of heavy dressings to the neck in extensive vertebral disease." [We should say it illustrated still more forcibly the greater necessity of *absolute rest* in the treatment of such cases, though, with such a condition of the parts as this, the avoidance of sudden death was scarcely possible. A similar case, with suggestions as to treatment, may be found in Hilton's "Rest and Pain."]

12. This article contains one very carefully studied and reported case of *primary carcinoma of the lymphatic glands* which was under the writer's own care, and three additional ones—all he has been able to find. They are all well reported, with the literature and authorities; and from a study of them all he reaches the following general conclusions: (1.) There exists, in the histological sense of the word, a primary carcinoma of the lymphatic ganglia. (2.) Histologically, the affection appears in a certain number of cases to approach the reticulated form; it is characterized then by alveoli, separated by a fine connective stroma into cells, which contain smaller cells having a certain resemblance to each other. Perhaps this special form of carcinoma of the glands is determined by the nature of the organ in which it is developed, and, some day, anatomical forms will be found intermediate between the lymphadenoma and carcinoma. (3.) The affection appears to present itself under two different clinical forms, local and generalized. (4.) The local form limits its manifestations to a single ganglion, or a group of ganglia. Its characteristics differ from those which are ordinarily met with in carcinoma, being generally scirrhous. It may easily be confounded with scrofulous adenitis, or the indurated forms of lymphadenoma, localized and benign. (5.) The generalized form resembles the malignant forms of lymphadenoma, with which it is almost always confounded. It invades a more or less extended portion of the ganglionic system, diffuses itself in the organs (lungs, liver, supra-renal capsules, and thyroid); compresses important vessels and nerves; causes œdema, and serous, purulent, and hæmorrhagic effusions; and rapidly leads to death.

14. From a study of sixteen cases of *spontaneous osteo-myelitis*, Senn reaches the following conclusions: "Spontaneous osteo-myelitis is an infectious disease. It is most prevalent in damp, changeable climates, and during the winter and spring. It affects with preference individuals during the periods of growth and development of bone. Traumatism and other agencies, which produce a retardation or arrest of circulation in the vessels of the marrow, act only as determining causes. Its primary seat is usually in the marrow of the cancellous tissue, in close proximity to the epiphysary cartilage. Joint affections are frequent and prominent complications. Thrombosis and inflammation of the veins of the marrow, bone, periosteum, and soft parts are of frequent occurrence, and are the direct causes of pyæmia. Swelling is absent for the first few days, and, when it does occur, it rapidly becomes diffuse, and is attended by œdema and enlargement of the superficial veins. Fluctuation is diffuse as soon as its existence can be ascertained. A constant high temperature and typhoid symptoms indicate the gravest type of the disease. Death may result from the intensity of the primary infection, but is usually produced by some complication. Early removal of the products of inflammation, under strictest antiseptic precautions and local disinfection of the tissues, is of paramount importance for its successful treatment. Epiphyseolysis may become completely repaired. Excision of the shaft may become necessary during the acute stage, to prevent exhaustion from profuse suppuration; this rule is not applicable if the humerus or femur is affected, on account of the impossibility of keeping the limb in position until regeneration of bone has taken place. In most cases fixation of the limb is necessary for the purpose of procuring rest and to prevent deformity." In connection with the article is a useful bibliography.

17. This case of *rupture of the axillary artery in an attempt to reduce a dislocation of the humerus*, occurring in the practice of Dr. Sands, is remarkable on account of the slight amount of force causing the accident. Nothing like violent efforts were made, and the foot was not in the axilla. In fact, the final attempt at reduction had not yet been tried when the extravasation was noticed. The tumor was of the size of a child's head at term, and there was loss of pulsation in the radial, ulnar, and brachial arteries. The lady came near losing her life from syncope, but seemed in a fair way to recover without surgical interference.

34. *Pozzi's method of removing cysts* consists in first emptying the fluid or semi-fluid contents of the cyst with an aspirator, and then injecting the cavity with some substance (*blanc de baleine*) which shall immediately solidify. In this way a firm tumor is obtained, which may be enucleated without the trouble usually caused by rupture of the sac and escape of the contents. It is particularly applicable to tumors about the head and face.

36. Two cases of *partial lateral dislocation at the elbow* are reported: one in a girl aged seven years; compound; reduced after nine days, with complete recovery of the joint; and one in a man aged twenty-five years, which from lack of proper treatment led to a resection. The accident is not uncommon, occurs most often in children, and may be either inward or outward. It is apt to be mistaken for a fracture of the condyle. References to the most important literature of the subject are given.

37. Nine new cases of the appearance of *scarlatina immediately after wounds* are given, in addition to those already reported by British and Continental authors, and the many interesting questions which arise in this connection are briefly but decidedly answered. The opinion that the scarlatina is but an accidental complication may hold in some cases, but not in all, several of the persons whose cases are here given having been exposed many times previously without being affected till the time of injury. As to whether the wound is received in these cases before the scarlatina infection, or *vice versa*, the writer believes both to be possible, but he does not think the opinion of Paget, that the infection always precedes the wound, is true of all, the time of incubation in some of those he has observed being entirely too long. He believes, however, that an infection which would not be sufficient to cause an outbreak in a healthy man will do so when one is suddenly prostrated by the addition of an injury. In the cases here reported the period of incubation after the wound ranged from two to fourteen days. The opinion of Murchison is quoted, that scarlatina is a disease of short incubation, seven days being the longest. He has observed one case of eighteen hours, Richardson gives a still shorter time, and Trousseau mentions from seven to eight hours. Of seventy-five of Murchison's cases, the disease appeared in fifteen within twenty-four hours after exposure. Whether the infection enters by the mouth or by the wound is also discussed, and on this point the writer does not commit himself. The eruption often appears first at the wound, though this may be due to its being the place of least resistance.

40. It will be remembered that several years ago, Dr. Moore, of Rochester, read a paper before the New York State Medical Society on the occurrence of *dislocation of the head of the ulna in connection with fracture of the lower end of the radius.* His claim to originality in the discovery of this previously undescribed combination was not questioned, but the condition was considered too exceptional to be of much importance, and his own experience with it was limited to two cases observed in the same person. Since then he has observed three new cases, making five in all, which are now published, and too well verified to admit of doubt, the actual condition being proved by post-mortem examination in some, and by exsection of the dislocated head of the ulna in others. The author's statement is simply this: that, in about half the cases of what is ordinarily known as Colles's fracture, there exists not only a fracture of the lower end of the radius, but also a dislocation of the head of the ulna, with rupture of its styloid process. The end of the ulna is driven on to the back of the wrist, and sometimes through the annular ligament and skin, as was the case with the specimens of exsected bone in his possession. He has seen four compound dislocations of this variety, and argues, safely enough, that for every compound one there must be many simple ones. The fracture of the styloid process is due to force brought to bear on the internal lateral ligament. There can be little doubt as to the justice of Dr. Moore's claim to originality in the description of this accident.

9, 28, 29, 30, 31, 41. The challenge which the "British Medical Journal" of December 13, 1879, in its strong advocacy of *Lister's antiseptic method*, threw out so boldly in its editorial columns has been accepted, both on this side of the water and by one of Mr. Lister's own colleagues. The challenge was this: "Let any surgeon under any other system produce cases in which a long series of the most tremendous operations in surgery have been effected almost without raising the clinical thermometer three degrees, without traumatic fever, without septic irritation, without any of the indications of danger which follow ordinarily the surgical invasion of the tissues; let him produce psoas abscesses following the course which they do follow under antiseptic surgery; let him show blood-clots organizing and dead tissue undergoing reabsorption; let him show a long series of great operations in which the presence of pus in any form is an exception. This can not be done." Now, statistics are uncertain things, and sometimes, in the hands of a good writer, as Mr. Spence is, are made to cut backward. We were a long time in getting any from Mr. Lister, and, when they came, he must have expected that they would be closely scrutinized. It was *not* enough, as he complains, for him to say he had only had one case of pyæmia in five years, but particulars were demanded on all sides. These he finally gave us, and to their criticism Mr. Spence devotes himself with energy. First, he matches Mr. Lister's table of eighty major amputations with nine deaths, during the five years and three quarters since antiseptic surgery has been properly carried out, with his own results, taking a period before antiseptic surgery was heard of—sixty-three major amputations and three deaths; and this under a treatment which consisted merely of washing the cut surfaces with tepid water or iodine-and-water, then uniting the margin with metallic sutures, laying the stump on a Mackintosh sheet, and covering it with a veil of muslin or thin cotton. At this point in the discussion the struggle fairly begins, and before reaching the end there is some little bitterness; for Mr. Spence objects to Mr. Lister's figures, and Mr. Cheyne, on the part of Mr. Lister, objects to Mr. Spence's figures, and says he has heard all that before. To this Mr. Spence replies that Mr. Lister had better do his own answering, and once more wants to know about those psoas abscesses. The point of the abscesses can be best explained by quoting from Mr. Spence's original paper: "I come now to a statement which, as given in the report, requires some explanation. I mean the statement in reference to the treatment of chronic abscesses. Professor Lister is reported as saying: 'When a new principle is propounded, I can not regard these statistics of individual cases as unimportant. *I say, if a case show new pathological facts, one individual such case is worth as much as a million*' (the italics are mine). 'I have published numerous cases, for instance, to show that a great abscess connected with disease of the vertebræ may be opened by free excision (incision?), a drainage-tube inserted, and strict antiseptic treatment used; and that from that hour I never had a drop of pus.' From what I know of Professor Lister's style of composition, I think he has suffered at the hands of the reporter or printer; but I must assume that his meaning is fairly represented. I will not in this case state the result of my own experience of the Listerian method in chronic abscesses, because the fault might be said to lie in my application of it; but I must ask Mr. Lister to explain his statement in relation to the fact, of which I can not suppose him to be ignorant, viz., that, when he left the Edinburgh Infirmary, there remained in his wards many cases of chronic abscesses uncured (I believe seventeen cases); and some of these had been upward of two years under his treatment. Surely, if the cases had been cured and ceased to discharge, he would have dismissed them from a public charity as cured." Mr. Lister, as far as we have seen, has made no attempt to answer this. In fact it needs no answer, and, the sooner it is forgotten, the better. We only quote it to show that this great surgical question of the day, which has so long been discussed in a purely scientific spirit, has at last shared the fate of all others. But the great fact remains. The challenge has been to all intents and purposes met, and what the "British Medical Journal" supposed could not be done has been done. It has been done on a smaller scale ever since surgery began, and will always be done where the essentials of good surgery are patiently carried out, even after the germ-theory and the carbolic spray have become curiosities of literature. But, while this controversy has been going on in England, America has stepped forward, and, after having been a patient follower of and experimenter with what has been given us from Europe, now speaks, through Dr. Markoe, in a pertinent, clear, and sensible article, written with that authority which his position as a surgeon and teacher entitles him to use. He also answers the challenge, but without in any way referring to it. He, too, has been experimenting for months, and he gives us the result. He admits, as does everybody else, the improvement in the results of operations since Listerism began to be used, but he does not accept it all quite as its inventor would have us do, and he asks the following questions: First. Is there no other explanation of the ill-behavior of wounds besides that offered by putrefaction and the absorption of putrid materials into the blood? Second. Are there no agencies which modify the tendencies to ill-behavior in wounds besides those that prevent putrefaction? Third. Are all the details insisted upon by Mr. Lister necessary to secure the favorable result? And, fourth, Is it true that, if all the precautions required are carefully and thoroughly taken, we may be absolutely sure of success? The first is answered in the affirmative by reference to some of the well-known facts of surgical pathology, such as the various local conditions which modify the inflammatory accidents of wounds, the various constitutional states which do the same, and the undoubted influence of the nervous system. The second is partly answered in the affirmative by the answer to the first, and, in addition, Dr. Markoe finds in carbolic acid a drug which, independent of any germ-theory, has a remarkable effect in controlling and arresting inflammation. The third question (are all of Lister's details necessary?) is answered very positively in the negative, both on theoretical and on statistical grounds. Theoretically, one may accord to germs all the power that Mr. Lister gives them with regard to exciting putrefaction, without admitting that they have "such astounding power in penetrating and permeating all surfaces, whether natural or traumatic, in such an incredibly short space of time, that, if vigilance be relaxed but for a moment, if but a small corner of the defensive works be left unguarded, so that a corporal's guard of these deadly enemies, which are keeping such vigilant watch for their opportunity, can gain admission, the battle is lost and the citadel captured." It is contended, "that, by careful and constant use of germicides on the exposed surfaces, the fatal particles can be in part kept out and in part slaughtered in the breach, or even within the walls, with the same certainty and success with which a few straggling assailants, getting entrance into a well-garrisoned fortress, would be dealt with, provided the main body of the besiegers were successfully held in check. If to these ideas we add that a very large number of the best minds in the surgical profession have great doubt as to the efficacy of the spray, as commonly used, as in itself a germicide, and believe that, freely applied to the exposed surfaces, either in aqueous or in oily solution, the carbolic acid is all-sufficient for the protective duty assigned to it, I have presented, as far as is necessary for my present purpose, the views of those who do not regard all Mr. Lister's minute details of treatment as in all cases necessary." For the statistical answer, Dr. Markoe gives us all the cases which have occurred during the past ten months, in the New York Hospital, to which Lister's method was at all suitable. He does not offer them for comparison with Mr. Lister's, but "feels that, occurring, as they have, under the supervision of one observer, in one institution, at one period of time, and embracing all the cases which, in that period, were suitable for the treatment, they have at least established a claim for careful consideration, and fairly justify a trial of a method which, though in a narrow sphere, has given such uniformly successful results." The method is what he calls "through drainage," and consists simply in using carbolic acid in aqueous solutions, no care being taken to exclude germs, and provision being made for constantly or frequently moistening the inner surface and cavities of the wound. Drainage-tubes are freely used sometimes in suitable cases, especially of compound fracture; two of them are passed between the fragments, and brought out through counter-openings. These, he suggests, are drainage-tubes which drain, and their ends are brought out through the dressing, so that bacteria may pass in and out at their pleasure. The injections of carbolic acid are made through these tubes—an immense advantage over the complicated manœuvring necessary to take off and put on a Lister dressing—as a compound fracture may be put up and kept quiet without disturbing the original plaster splint till the end of the case. There is no spray, no protective, no Mackintosh. The results are these: Fifty-two cases of all kinds, twenty-one of them being compound fractures, five amputations, several opened joints, and the remainder such as the general surgeon constantly meets with. For particulars, we must refer the reader to the original. "Every case went through its successive stages without inflammation at any time sufficient to defeat repair; in every case the result was equal to the best attained in the most favorable instances of the given traumatism; few abscesses were met with, and none of the character of diffuse suppuration; no compound fractures failed to unite, and in only a small number was there any necrosis of the ends of the fragments." This theory of the putrefaction of wound-secretions as the sole or most common cause of blood-poisoning, on which Listerism in part rests, and which Dr. Markoe meets in the answer to the first of his questions, is also met by another American surgeon, Dr. L. A. Stimson, in an able article. He holds that the weight of evidence is against it, as proved by the following facts: 1. The contagiousness of erysipelas and its frequent independence of an open wound indicate a cause other than putrefaction. 2. The contagiousness of pyæmia, its comparative limitation to crowded surgical wards, its greater frequency in winter, and its relatively tardy appearance, are not compatible with the theory of causative putrefaction; while its rarity after simple wounds, its frequency after those associated with much laceration and bruising of the tissues, and its more common occurrence in persons reduced by habitual exposure or dissipation, point toward an auto-production of the poison, dependent upon altered vitality of the tissues involved in the injury. 3. A variety of blood-poisoning, characterized by a rapid onset and extreme severity, is seen especially in military surgery, under physical conditions which are not only unfavorable to the origin and spread of a putrefactive process, but are generally considered a guarantee against septic complications, e. g., soldiers exhausted by forced marches and dispirited by defeat, operated on in the open air, lying in tents or farm-buildings, often at seasons when everything is frozen, furnish an enormous percentage of mortality from this cause, and die even before their wounds have begun to suppurate. 4. The danger of post-mortem inoculation, a septicæmic affection, varies with the cause of death, being greatest after puerperal or surgical poisoning; and in these and other cases it diminishes with the appearance and progress of putrefaction. 5. Experiment has shown that, to render a rabbit septicæmic, injections of ten, twenty, even thirty drops of putrid blood are required, and even these are not uniformly successful; but the desired effect can be produced speedily and certainly by the injection of the millionth part of a drop of fresh blood taken from another animal dying, or just dead, of septicæmia. Moreover, if this latter blood is allowed to putrefy, it loses its virulence. 6. Vulpian produced, by the injection of a small amount of the extract of bitter-sweet under the skin of a frog, a septicæmia identical with that produced by the similar injection of a true septicæmic virus; and he got a like result from the action of a corrosive substance, cyclamine, upon the œsophagus. 7. By exciting an acute attack of indigestion, a German pathologist has, he states, recently caused pyæmia and putrefaction of the discharges of the wounds, in dogs recovering under antiseptic treatment from injuries to their bones. 8. Pasteur, whose statements are always to be received with respect, has described a septic vibrio that is entirely distinct from the vibrio of putrefaction, and a vibrio of purulent infection (pyæmia) which somewhat resembles the latter. These vibrios are found in abundance in ordinary water and in the air in the form of corpuscle germs; and he claims that the only reason why they do not seriously complicate every wound is, that the vital action of the tissues is unfavorable to their development and multiplication. 9. It is a fact daily observed that purulent collections of extreme fetidity may exist in the body without giving rise to blood-poisoning. "It is evident, then, that there is something to be guarded against in the treatment of wounds besides putrefaction, and this something is in the nature of a specific poison, which, there is reason to believe, may be generated in the body *de novo*, and which certainly is transmissible. This view harmonizes apparent clinical contradictions, and explains the success of different methods of treatment as the theory of putrefaction can not do. There is nothing in it incompatible with the belief that putrefaction may be positively injurious, either by furnishing a suitable nidus for the development of specific germs, or by so modifying adjoining tissues whose vitality is already compromised as to turn the scale in favor of the occurrence of an actively poisonous process therein. According to it, the Lister dressing acts by destroying specific germs that fall upon the wound during the operation, by preventing the arrival of others subsequently, and by drainage, rest, equable pressure, and the absence of ligatures; and, when these conditions are realized by other means, equally good results may be expected."

57. What Dr. Roddick speaks of as *a modification of Esmarch's method in the treatment of popliteal aneurism* consists in elevating the limb, stripping it of blood, and applying an ordinary Petit's tourniquet to the femoral in Scarpa's space. The limb remained raised on pillows, with the knee slightly flexed. After half an hour, the limb being of an intense blue color, and the patient suffering great pain, a Martin's rubber bandage was applied firmly from the extreme points of the toes to the tourniquet, thus making the limb again bloodless. This had the effect of relieving the pain very considerably; the tourniquet was then tightened. [We are left to infer that it had been loosened during the change.] At the end of an hour, the pain was again very great; the limb was again congested; there was no pulsation. The elastic bandage was applied, and was followed by a flannel roller, as the patient complained of cold. After one hour and seventeen minutes the tumor was firm; the articular vessels, before imperceptible, were now distinctly felt: the pain was very great; Skey's tourniquet was now applied over Petit's, and the latter was removed; the limb was then wrapped in wool. This case is almost too concisely reported for us to follow each step of the operation, but the general plan is plain. The author claims this chief advantage over Esmarch's bandage, that, while the current of blood through the aneurism is arrested by simple elevation, bood sufficient for coagulation is allowed to remain, while a certain amount is permitted to approach and probably enter the sac from collateral sources. Besides, the latter often causes sloughing of the skin and cellular tissue, and perhaps permanent injury to the nerves. The occasional application of Martin's bandage obviates the painful and otherwise hurtful venous stasis which must of necessity occur. The tumor was as firm at the end of an hour as at any subsequent time, and the bandage might with safety have been removed then.

59. This is the nineteenth case of *extirpation of the larynx* on record, and the first in America. The tumor grew, not from the interior of the larynx, but from the upper edge of the thyroid cartilage, and a previous thyrotomy had been done, but without relief. The patient, a man, aged seventy-four years, was rapidly losing strength from the difficulty in deglutition. The disease involved the anterior wall of the œsophagus as well, and this also was removed. The operation was perfectly successful, an artificial apparatus enabling him to articulate and to swallow soft food. The statistics of the operation show thirteen deaths in nineteen cases, generally from recurrence.

QUARTERLY REPORT ON DISEASES OF CHILDREN.

No. I.

By WILLIAM LEE, M. D.,
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1. Hicks, J. B.—On nursing systems. "British Med. Jour.," Jan. 3, 1880.
2. Musatti, C.—Il solfito di soda nell' allattamento artificiale e nei catarri intestinali dei bambini. "Gazz. Med. Ital. Prov. Venete," Jan. 24, 1880.
3. Hamilton, J. J.—Notes on a case of spina bifida. "Ohio. Med. Recorder," Feb., 1880.
4. Jacobi, M. P.—A case of tubercular meningitis, with measurements of cranial temperatures. "Jour. of Nervous and Mental Disease," Jan., 1880.
5. Busey, S. C.—Thrombosis of the sinuses of the dura mater in fatal cases of dysentery in young children. "Am. Jour. Obstet.," Jan., 1880.
6. Deutsh, J.—Winke zur Diagnose der Taubstummheit bei Kindern für Aerzte, Eltern und Lehrer. "Med.-chir. Central-Bl.," Jan. 2, 9, 16, 1880.

7. Allan, J. W.—On the treatment of whooping-cough. "Glasgow Med. Jour.," Feb., 1880.
8. Archambault.—De la fièvre typhoïde chez les enfants. "Gaz. Méd. de Paris," Jan. 24, Feb. 7, 21, 1880.
9. Fowler, S. W.—Scarlet fever. "Cincinnati Lancet and Clinic," Feb. 7, 1880.
10. Sozinskey, T. S.—Statistic, climatic, and allied features of scarlet fever. "Med. and Surg. Rep.," Jan. 24, 1880.
11. Schuster, C.—Ein Beitrag zur Behandlung der Diphtherie. "Deutsche med. Wochenschr.," Jan. 17, 1880.
12. Bartscher.—Statistischer Beitrag zur Tracheotomie. "Deutsche med. Wochenschr.," Jan. 17, 24, 1880.
13. Harvey, E.—Cholera infantum. "Cincinnati Med. News," Jan., 1880.
14. Jones, T.—A case of valvular disease of the heart in a child, followed by singular motor phenomena. "Med. Record," Jan. 24, 1880.
15. Smith, J. L.—Constipation in children. "Am. Jour. Obstet.," Jan., 1880.
16. Nash, S. L.—A case of imperforate anus. "Canada Med. and Surg. Jour.," Feb., 1880.
17. Berry, J. J.—Articular osteitis of the knee in children. Notes on its pathology and diagnosis, based upon an analysis of thirty cases. "Med. Record," Jan. 31, 1880.

1. The importance of following out thorough *systems of nursing* is no doubt, as Hicks says, too little thought of; and up to this time treated almost with indifference. He divides nursing systems into three kinds: 1. The ward system; 2. The central system; 3. The nursing system.

1. The Ward System.—In this arrangement, we have the hospital authorities; then a matron, sisters, and nurses. The sisters are engaged and dismissed by the hospital authorities, so that, except through these authorities, the matron can not dismiss. The sister is the head of her ward, and is responsible for its condition, but in a manner she has to serve two masters—i. e., the lay authorities and the medical staff. She is, in so far as the latter are concerned, responsible to them; hence it is necessary that she be superior to a simple nurse; and she is, in her ward, an embodiment of the hospital, the representative of the double head of the charity—the lay authorities and the medical staff. Therefore she should be a person well tried and thoroughly acquainted with nursing in its various branches, so as to be able to instruct the nurses under her. To secure the right sort of person, a good salary should be given, not one which would satisfy an ordinary cook. Her authority in the ward should be supported so far as possible; and, still more important, her love for the work should be developed by fostering a kind of *esprit de corps*, the glory of the regimental system. When properly educated, the nurses should be attached to that department for which they may have a preference. They should, in every case, aim to work harmoniously with the medical staff; and, if this can be accomplished by the authorities, we shall then have a true ward system.

2. The Central System.—In this, the staff consists of much the same officers as in the "ward" system, only the relationships are different. Here, the position of the sister, or "ward head," is lowered more or less; in some instances, she is not much more than head-nurse. She is mainly, and in some instances entirely, responsible to the matron, or "lady superintendent," as she prefers to be called. This begets less interest in satisfying the medical officers on the part of the sisters, as they are never consulted in anything connected with matters affecting her services. This begets the formation of cliques among the nursing staff, which almost closes the door on efforts to ascertain the truth in regard to errors or complaints. "The central system possesses the faults of centralization. It

tends to bring all its agents to the same level, which, though it may not be very low, yet can not rise to the highest standard." One of the rules of this central system is a particularly bad one, namely, the frequent changing of nurses, the excuse being, that a nurse might become too much attached to one locality. It seems almost an absurdity to point out the error, so apparent is it. Is there no advantage to be derived from the nurse knowing the ways, the peculiarities, of the patient; the physician's or surgeon's methods; and this emphatically in special plans of treatment which it has taken years to teach? Not only this, but the nurse, if she loves her profession, becomes attached to the patients and to the ward by continuity of work.

3. The Nursing System.—This is a simple form or plan for teaching nurses; but it is frequently confounded with the central system. Persons are received who, after having listened to lectures on the details of future work, are brought into contact with its practice in the wards of hospitals or infirmaries. In all these systems, it is by their practical application to the needs of the patients, and in the carrying out of the plans of the medical staff, that "systems" must be judged. Probably none of the nursing systems have yet reached their highest state of efficiency. Some have aimed too high. Some nurses have failed because not thoroughly trained; most have omitted to take advantage of mechanical helps; others have studied the dietary of the sick too little. Probably, too, we medical men have not done as much as we could have done in the matter; and, engrossed with more exacting problems, have somewhat overlooked this very important subject.

3. From the healthy condition of the child in this case of *spina bifida*, and from there having been no symptoms of hydrocephalus, I am inclined to the belief that, had the pressure-treatment been continued longer, and a proper quantity of the injection proposed by Dr. Brainard, of the United States (he was the first to use it, and not Chassaignac), been used, the issue would have been different. The proportions are as follows: water, four ounces; iodine, one-fiftieth of a grain; iodide of potassium, one fifteenth of a grain; taking the precaution of injecting only into the sac; and, by a sufficient compression, preventing any fluid from entering the vertebral cavity.

4. The patient, in this case of *tubercular meningitis*, was an infant of twenty-two months, and the disease was developed from an attack of the broncho-pneumonia of measles. The patient had been under observation for a month previous, without any cerebral symptoms whatever. Those first noticed consisted of drowsiness, vomiting, retraction of the head, with rigidity, a hard, irregular pulse, Cheyne-Stokes respiration, apathy succeeding to restlessness and constant crying, commencing retraction of the abdomen, instead of the tympanites before existing. The cranial temperatures were taken on three different days, and were compared each time with the normal average as given by Dr. Gray. The child died on the eighth day, and an autopsy revealed the expected generalized miliary tuberculosis. A full statement of the condition of the brain is given in a very interesting manner and with unusual care. It is noticeable, from the tables of temperature given, that on the first two days the right vertical region was hotter than the left by half a degree, although normally it should be a trifle cooler; but, when the general collapse accompanying the cerebral effusion set in, the right vertical temperature fell to a degree and a half below that of the left.

5. In many cases of dysentery, where the convalescence seemed almost established, the child would be seized with convulsions, to be followed by coma and death; consciousness not returning in any instance after the first convulsion. These observations led the author to believe that the convulsions were caused by *thrombosis of the sinuses of the dura mater;* although this conclusion could not be verified, as there was no autopsy. This belief was maintained, notwithstanding the commonly accepted opinion that the convulsions in exhaustive diarrhœa are due to cerebral anæmia. Gerhardt found thrombosis in the sinuses of the dura mater in seven autopsies of children who had died of profuse diarrhœa, attended with cyanosis, coma, and convulsions. J. Lewis Smith and others include chronic gastro-intestinal diseases among the causes; and, more recently, Bouchut has definitely determined the fact that such formations may and do occur in a variety of the chronic affections of young children, and occasionally at the termination of acute diseases. In such cases death is preceded by convulsions. In a limited number of fatal cases of protracted diarrhœa in very young children, œdema of the lower extremities was noticed, and in two instances this was associated with discoloration of the integument of the feet and legs, supervening several days previous to death. While regarding the phenomena as indicative of a fatal result, the author had not, prior to the researches of Bouchut, recognized the formation of thrombi in the pelvic veins as the cause of the venous stasis and the serous transudation into the subcutaneous cellular tissue. Thrombosis may be single or multiple, and the obstructed channels may be partially or completely occluded. In the treatment, sometimes stimulants seemed to have been too long delayed or inefficiently employed; in other instances they were too lavishly used, and not enough attention was paid to diet. In very young children, the pulse, the condition of the anterior fontanelle, and symptoms of collapse are safe guides in the use of stimulants. After the closing of the fontanelles, the pulse and the state of exhaustion constitute the only criterion by which the administration of stimulants can be regulated; the error more often consisting in an inefficient than in an excessive use of these agents. "It is better," says Jacobi, "for children to take, in the course of the day, three or six ounces of brandy, and ten or twelve grains of camphor . . . than it is for parents to bury them the next day." Delay in commencing their use is, perhaps, a frequent mistake. Stimulants, withheld until collapse threatens immediate death, accomplish, as a rule, little more than the prolongation of life for a few hours. But, after all, nourishment constitutes the main reliance. Blood impoverishment progresses with extraordinary rapidity in dysentery. To counteract and stay the development of complications incompatible with life, believed to be the successive results of devastation of the blood, nutrition must be maintained during the acute stage of the disease, and not neglected and deferred until exhaustion is so far advanced and the blood has become so impoverished that digestion and assimilation are physiological impossibilities.

7. While not denying that alum, myrrh, quinine, chloral, croton chloral, bromide of potassium, lime-water, the inhalation of turpentine, and rubbing of the spine with belladonna liniment, may have a certain value in the treatment of *whooping-cough*, the author thinks that none of them have any claim to the title of specific. Hydrocyanic acid has hardly had a fair trial, but it is a remedy that one would not care to push in children. Chloral hydrate is evidently of value, and in severe cases should be tried. In babies, rubbing the spine with belladonna liniment should be practiced; but fresh air, tonics, nourishment, and warm clothing should be assigned the first place. The following propositions are submitted: As far as possible the open-air treatment should be carried out, care being taken that the patient is warmly clad in flannel, and regard being had to the weather. The diet should be light and nourishing, and cod-liver oil, with syrup of the iodide of iron, should be given when there is a scrofulous diathesis. In young children, rubbing the spine with belladonna liniment should not

be neglected, and recourse should be had to chloral hydrate, or croton chloral where the paroxysms are frequent or severe. The patient should be protected from sudden changes of temperature, and emotional excitement should be carefully avoided.

8. We regret that space will not permit us to abstract for our readers the important points of this excellent article on *typhoid fever*. It deals with the diagnosis, treatment, complications, and mortality of the disease, and abounds in useful hints drawn from a large experience. In one hundred and eighty cases the writer has had a mortality of twenty, of which seven were due to complications independent of the fever. He recognizes a benign form, which almost always ends in recovery, and the treatment of which is almost entirely hygienic; and a grave form, which is due to the exaggeration of certain symptoms or to complications resulting from adynamia or debility. He rejects entirely the antiphlogistic and purgative methods of treatment, and confines himself to the use of tonics; quinine for the fever; warm baths in preference to cold, as less liable to cause pulmonary complications; bismuth and laudanum for the diarrhœa; and blisters for pulmonary congestion. A distinction is drawn between the delirious and the comatose forms of cerebral symptoms, and the general plan for treating each is marked out. The whole article will repay a careful perusal.

9. The writer is satisfied, from experience in a recent epidemic, that the principal mode of contagion from *scarlet fever* is by inhalation; also, that it went to prove the theory of inoculation. He says: "That the poison may be swallowed, there is no doubt; and that it may be communicated by direct inoculation can not be questioned." He next mentions the value of the clinical thermometer as a means of diagnosticating the severity of the disease. There is little else of note in the paper, except his great success in treatment, which was by means of salicylic acid, both internally and externally, an iced solution being used for the latter purpose.

11. After referring to the facts that *diphtheria* varies in its intensity and results at different times, and that a long course of observation is necessary to test the value of any system of treatment, the writer gives the results of his experience, extending over the last twelve years, with chlorate of potassium (four to eight grammes in twenty-four hours) and the local use of nitrate of silver in stick. He claims to have treated about five hundred cases without a single death, except from necessarily fatal complications, and only three or four of those.

12. This article contains more than the title would imply, dealing as it does not only with the statistics of *tracheotomy*, but with the questions of the differences between croup and diphtheria, and the true nature of each; the indications for and methods of performing the operation; the prognosis after operation, and the after-treatment. The author has himself had remarkably good results, giving a table of seventy-two operations, with thirty recoveries: 47 males—21 recovered, 26 died; 25 females—9 recovered, 16 died; 19 males under three years of age, 15 died; 28 males over three years, 11 died; 11 females under three years, 9 died; 14 females over three years, 7 died. The youngest child, a year and a half old, recovered, as did also the eldest, fourteen years old. The statement that tracheotomy holds out a hope of cure only in children over six years of age is criticised in the light of these figures, nine out of the fourteen patients of the writer which were under this age having recovered.

14. In this very interesting case of *valvular disease of the heart*, it is to be regretted that the author did not see more of it, that dates are not more particularly mentioned, and that the history of the child's condition between the visits is not more fully given—especially as, at his last visit, the author discovered endo- and pericarditis complicating the valvular disease.

He gives, however, a most interesting description of a singular symptom—convulsive twitching of the right side of the body, which recurred at intervals of some three or four seconds. The movements were quite strong, the leg being drawn up with considerable force. At the same time the arm, especially at the elbow, was raised from the bed. Coincidently with this, the muscles of the face, on the corresponding side of the body, were drawn in violently, and frightful contractions took place, resembling twitchings produced by a galvanic current. Death occurred a few hours later.

The author goes on to say that no satisfactory explanation of this singular phenomenon has occurred to him, and asks the question, Was it due to some regurgitation of fibrinous concretion, having been swept off the mitral valve, carried thence as an embolus to the motor tract of the brain, and there giving rise to these unilateral twitchings? It will be objected that embolism, like apoplexy, gives rise to paralysis, and not to exaggeration of motion. In the vast majority of cases this is true; but it is equally so, as Dr. Hughlings Jackson has fairly shown, that chorea minor is occasionally the result of embolism of a cerebral vessel supplying the corpus striatum and neighboring convolutions. Now, if embolism can give rise to the exaggerated motor disturbances of chorea, why may it not rationally explain the exaggerated motor disturbances observed in this case of heart-disease? He does not think the symptoms can possibly be explained as the result of metastatic inflammation in the brain, due to an embolic plug, because the fatal objection to this explanation is that, granting that localized inflammation of the brain may give rise to motor disturbances of the body, still, in this case, the onset was too sudden, and the interval between the first manifestation of the twitchings and the fatal close was too brief, for the condition to be chargeable to localized inflammation of the brain. If the motor disturbances were due to ordinary convulsions, which, in children, precede death in such a variety of diseases, the case is by no means robbed of its interest. The question is still pertinent, Why did the convulsions affect but one side of the body? Again, are not infantile convulsions, as a rule, bilateral? The mode of the seizure, together with the previous history of the case, he thinks, fully excludes reflex causes due to peripheral irritation. Assuming, then, that the cause was central, the question arises, Will ordinary infantile convulsions explain the motor phenomena observed in this case? The idea which supposes them due to embolism of one of the vessels supplying the motor centers of the brain offers, he thinks, the most reasonable explanation.

15. *Constipation* is divided into two kinds, symptomatic and idiopathic. Symptomatic constipation is caused in various ways, the most common are: (a) Congenital stenosis. (b) Intestinal displacements. (c) Substances which have been swallowed, or substances whose nuclei have been swallowed, and which consist of a deposit of carbonate and phosphate of lime; or substances which have been produced entirely in the system, and which, lodged in narrow parts of the intestines, cause constipation; one instance is mentioned under this head where the cause was from worms. I have seen five instances were such was demonstrated to be the case, and am confident that retarded evacuations are often due to worms. (d) Abscess or tumor, when occurring in the pelvis. (e) Peritonitis and its results are often known to be a cause. *Idiopathic Constipation.*—Causes for this kind are numerous. First, too little liquid in the excrement, so that it is too firm for ready evacuation. The character of the food, apart from the amount of liquid which it contains, has an influence upon the consistence and frequency of the stool. Sometimes the infant hangs long at the breast, and the mother thinks it eats heartily, whereas there is an insufficiency which causes constipation. Again, the flow of milk is free, the child nurses heartily, but, owing to a deficiency of colostrum, the child remains constipated. Colostrum is more laxative than ordinary milk, and differs chemically from it in containing more butter, sugar, and salts. Food not too easily assimilable stimulates peristaltic action and the secretions, increasing the frequency of the alvine discharges. Then, with some, there is a constitutional tendency to constipation, and under this class we find most cheerful and apparently robust children. We must bear in mind, too, that constipation can be encouraged, and that regularity in going to stool is conducive to a cure.

Symptoms.—In infants the symptoms are fretfulness and the movement of the thighs over the abdomen. Continuing for a length of time, it may produce fever, and, with some children, eclampsia. It is surprising how long a person may live, suffering all the time from extreme constipation. Idiopathic constipation comes on gradually, having its origin often in infancy, at which time it might have yielded to treatment, and thus a life of suffering have been saved.

Treatment.—That of symptomatic constipation obviously consists in the removal, so far as is possible, of the primary disease or cause. In idiopathic constipation, hygienic measures, such as acquiring habits of regularity of hour, etc., each day, care as to the diet, selecting that which is laxative as far as possible, should be observed. As is known, the digestive process in infancy, and in many older children, is not capable of converting starch into glucose; and this knowledge has led to the preparation of different artificial foods in which this change is effected by a chemical process. This glucose, being somewhat laxative, can be given either in the form of the "maltose" or "granulated sugar of malt," or preparations of Liebig's food. I have used a preparation of food for infants mentioned in Eustace Smith's work "On Wasting Diseases of Children," and known as Mellin's, ever since that work first came out, and, for constipation and impaired digestion, have found it to give uniformly good results. Oatmeal is more laxative than most other kinds of amylaceous food. Made into a gruel and strained, it may be given through a nursing-bottle. Free use of water in the ingesta materially aids in relieving constipation. This we know from the benefit to be derived from a glass of water taken early in the morning. Another important aid in overcoming constipation is frequent kneading of the abdomen, particularly if at the same time some oily substance be used. Cold applications to the stomach and bowels, we know from their power of stimulating contraction of the muscular fibers of the intestines, can be made useful. In certain long-continued, aggravated cases, the frequent use of enemata is required. Suppositories are sometimes substituted. The Faradaic current, from its known contractile effect on the muscular fibers, has been used. Of drugs, nux vomica and its active principle, strychnia, are mentioned as the most reliable adjuncts to purgative mixtures, from their effect in increasing the action of muscular fibers. Notwithstanding physicians are often at a loss what to prescribe for nursing children suffering with this trouble, if they will bear in mind that colostrum is more laxative than ordinary milk, and that it differs from the latter in containing more sugar, salts, and butter—a hint can be taken as to what is wanted in the milk, and therefore the author says, "I am in the habit of giving oil, sugar, and salts in the following formula, and with the desired laxative effect: ℞. Ol. morrhuæ 2 parts, aq. calcis, syr. calcis lactophosphat., āā, 1 part. A sufficient dose of this is to be given with each nursing. When older children need treatment for constipation, preparations of aloes are the best to be given, from the fact of their action being almost entirely upon the colon, which is the part of the intestines chiefly implicated, while at the same time they produce little or no irritation of the long tract of the small intestine.

QUARTERLY REPORT ON DISEASES OF THE SKIN.

No. I.

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10. Sawyer insists upon the recognition of scrofula, gout, general debility, and other general conditions as bearing a causal relationship to eczema. He praises the oleate of zinc as a local application, and also the following ointment: lead oleate, 24 parts; heavy and inodorous paraffin oil, 14 parts. The lead oleate is prepared by heating a mixture of oleic acid and oxide of lead.

12. Lush strongly recommends the following lotion in chronic palmar eczema: ℞. Sodii bicarb., ʒ ij; potass. bicarb., ʒ j; glycerine, f ʒ jss; tinct. opii, f ʒ ij; aquæ, ad f ℥ viij. M. He considers this to be almost a specific for the relief of the intense burning irritation which often attends chronic eczema, especially in rheumatic patients.

13. In referring to the statement of Dr. Delore, of Lyons, that the epidermic desquamation of the fœtus is an incontestable proof of death in the uterine cavity, Manby reports the case of a healthy male infant, born after a protracted gestation, whose epidermis was thrown off in flakes upon the towel, leaving large patches of raw skin. The child lived and did well.

15. In an exhaustive article, Tilbury Fox sums up the clinical features of hydroa as follows: It is a disease probably of purely neurotic character. Patients affected are usually weak, irritable, nervous, and generally out of health. The symmetrical character of the disease indicates disturbance of the spinal system. The characteristic lesion is a small pruritic bulla. The rash attacks by preference the extensor aspects of the limbs, the parts about the genitals, and the face. Three varieties may be made, namely, hydroa simplex, hydroa herpetiforme, and hydroa bulleux *vel* pruriginosum. The treatment consists in the exhibition of nervine tonics, diuretics where there is much erythema, regulation of the diet and removal of dyspeptic symptoms, rest and freedom from worry, with soothing and antipruritic local remedies.

19. Pollard sprinkles dry salicylic acid over the surface of the ulcer previously cleansed with soap and water. The dressing should be renewed at least twice daily. He has used it with gratifying results in weak, indolent and inflamed ulcers, and in one case of chancre. His faith in its efficacy is as strong as his belief in the salutary effect of a running sore, and, in concluding his remarks, he adds this caution: "If there is any reason why an ulcer should *not* be healed, such as extreme age, etc., let no consideration induce the physician to apply the acid; for, so surely as you do, so certainly will the ulcer be healed."

21. Hill reports a case of "bloody sweat" occurring in a boy four years of age, suffering from malarial fever. During each sweating stage blood oozed from the face and neck. Febrifuges followed by quinine afforded relief, but two months later he was seized with an attack of both vomiting and purging of blood, from which he died. No autopsy.

23. At a meeting of the Pathological Society of London, cases and microscopical specimens were shown. Crocker said the main difference between scleroderma and morphœa was, in the depth of the affection, the former beginning in the deeper portions of the corium and subjacent tissues. The histology was the same in both. He proposed to drop the meaningless term morphœa, and to speak only of diffused and circumscribed scleroderma. In the discussion, Hutchinson thought the two affections differed only in degree. The greater the extent of surface affected, the less local thickening. He thought the disease lay in the nerves, and was not merely produced through their influence.

27. In the case reported by Baker, the skin was cut off superficially, not going as deep as the subcutaneous tissue. Nitric acid was also applied. The operations were repeated during a period of four years, and a good result was obtained, there being no contraction. The hairs continued to grow after a number of operations, but finally an excellent result was attained.

30. McNamara, a British army surgeon, has frequently noticed the development of keloid in the vaccination cicatrices of soldiers. He thinks it possible that the scars of primary vaccination in children are not so liable to be affected as those of the adult.

33. Vidal claims that internal remedies, with the exception of the chlorate of potassium, are powerless in the treatment of epithelioma. He gives from four to six grammes (60 to 90 grains) daily, and advises it to be taken with the meals. He has continued the administration of the remedy for eighteen months without discomfort to the patient. Locally he uses a saturated solution of the salt, and when the borders are indurated he sometimes applies the powder every three or four hours. When induration is extreme, he resorts to scraping or the application of the nitrate of lead, which sinks into the hardened tissue. A cure is thus obtained in two, three, or four months. The internal use of the chlorate should be continued to prevent a relapse.

38. In reply to the query of a physician, who had been tormented with this troublesome affection for two years, and had treated himself medicinally, dietetically, and locally with but poor success, the following plans of treatment were recommended: (1.) Use tepid water instead of paper after defecation. Use every night a suppository of $\frac{1}{4}-\frac{1}{2}$ grain of extract of belladonna. Regulate the bowels with mild laxatives. Take small doses of quinine and arsenic three times daily. (2.) Apply glycerinum acidi carbolici (P. B.) at bedtime. Apply an ointment of calomel ʒj, camphor ʒss, vaseline ʒvjss, every morning. (3.) ℞. Acid. carbolic. ʒj, olei oliv. ℥j or ℥jss. Apply with the finger at bedtime. Keep the rectum empty, and prescribe alkalies in case of a lithic acid diathesis. (4.) Apply strong mercurial ointment sparingly at bedtime or the oleate of mercury (20 per cent.). (5.) ℞. Scheele's hydrocyanic acid ♏ xxx, solution of morphia ʒj, best birdseye tobacco ℥j, water, to half a pint, to be used morning and night, or when necessary. (6.) Wear a piece of cotton wool at the anus, retained by a few shreds inserted inside the sphincter. Renew after each evacuation.

53. Shoemaker reports the symptoms and successful treatment of three cases of "inflammation of the hair follicles of the beard," an affection "described by both ancient and modern writers under the name of sycosis." The writer offers no objections to the use of the latter term, but evidently prefers the longer and more grandiloquent title. In his remarks on treatment he lays stress upon the occurrence of the affection in those who are overworked, debilitated, anæmic, and dyspeptic, and urges the use of internal as well as external remedies. Local depletion is commended, and the application of equal parts of oleate of mercury and olive oil, scented with oil of roses. [The experience of the author that epilation serves to increase the irritation is certainly exceptional.]

54. Atkinson, in an excellent clinical lecture, presents cases illustrative of the three forms of cutaneous epithelioma, viz.: 1. The superficial or flat variety; 2. The papillomatous variety, and, 3. The deep-seated or infiltrating variety. He regards the so-called "rodent ulcer" as an epithelioma of superficial character, an opinion which seems to be rapidly gaining ground in this country. The internal treatment of the disease by means of "specifics" is condemned in a most emphatic manner. The use of the dermal curette, the solid stick of nitrate of silver, and the arsenical paste is spoken of in high terms.

55. Hardaway gives an interesting account of the operation for removing the annoying growth of hair so often seen upon the face in females. He employs a No. 13 cambric needle, and about eight cells of a freshly charged galvanic battery. The needle is introduced before removing the hair, and allowed to remain until a slight frothing is observed, or until the hair can be removed by the gentlest traction. The sponge electrode held in the patient's hand is to be released before the needle is drawn out, in order to avoid the slight shock which otherwise is usually felt. The doctor operates with a strong lens held in the left hand. [We are glad that the attention of the profession has been once more called to an operation for the relief of a common and distressing deformity, which is as successful as it is safe and simple. Our own experience, like that of Dr. Hardaway, runs back a number of years, and amply demonstates the permanent results of this method. The use of a lens, which Dr. Hardaway regards as an indispensable adjunct to the procedure, can be advantageously dispensed with, we think, if one possesses ordinary sharpness of vision.]

56. In an editorial in the "Medical Times and Gazette," the relative merits of chrysophanic and pyrogallic acids are discussed, and mention is made of the experiments of Hebra, Besnier, and others. The latter remedy, though slower in its action, is preferred to the former, inasmuch as it excites less cutaneous inflammation, and produces comparatively little staining. Dr. A. Neisser reports the case of a robust psoriatic patient, one half of whose body was painted with chrysophanic acid, the other with a ten per cent. pyrogallic acid ointment. Six hours later he had a severe rigor, attended with vomiting, and died on the fourth day. Experiments upon animals have proved the harmlessness of the chrysophanic acid, and the danger of poisoning from a free use of the pyrogallic acid. A good suggestion is made by Neisser, that the external use of the latter be restricted to the head and face, the former remedy being used upon the trunk and limbs.

57. Alder Smith, who has evidently had unusual opportunities for the study of ringworm of the head (trichophytosis capitis), calls attention to some very important points respecting the diagnosis and treatment of the affection. Very few medical men, he says, are aware of the obstinacy which characterizes certain cases of ringworm, and frequently children are sent to school with the certificate of a medical man of high standing stating that they are cured, when their heads are far from being free from the parasitic growth. The fact that the hair grows freely over the affected part is not a sign of cure, for in such cases examination with a lens will often reveal many broken hairs or stumps scattered among the new hairs on the patches. Follicles from which no hairs are growing, or black dots, indicating that the diseased hairs have been broken off on a level with the surface of the scalp, are always to be sought for and regarded with suspicion. When the ringworm is "disseminated," as sometimes happens in chronic cases, the scalp may appear healthy and almost free from scurf, and the hair may grow freely and firmly all over the head. This form is rarely diagnosticated, and is very difficult to cure. The variation of many cases of ringworm of the scalp from the typical aspect of the affection must be borne in mind. Patches of eczema and of seborrhœa are sometimes difficult to distinguish from ringworm, but a close examination will reveal in the latter case the existence of one or more of the characteristic stumps or black dots.

It is extremely difficult to certify that a child who has had ringworm is absolutely well. Many are deceived by the temporary absence of broken hairs on bald patches. It is better to reserve judgment until the downy hair is growing freely without any stumps. Nor should attention be wholly paid to one or two patches, but, in order to check the disease in its incipient stage, the whole scalp should be constantly examined during treatment. In the examination of hairs beneath the microscope, the writer cautions against the mistaking of atrophied stumps, which occur after a cure, for stumps which are diseased. Ringworm is common among children of the rich as well as of the poor, and in private families as well as in schools. The disease often exists for a long time without its true nature being suspected.

In the local treatment of the affection, Smith recommends a mixture of liquefied carbolic acid and glycerine in the proportion of from twelve to fifty per cent. of the former. The affected portions of the scalp should be shaven, or the hair cut close, and the carbolic-glycerine applied by means of a sponge-mop twice or thrice daily. The strength of the application should vary in accordance with the age of the patient and the chronicity of the patch. The weaker solution (one to eight) may be applied to the whole scalp, not only of the patient, but of other children in the family, in order to prevent the extension of the disease. At night, a cap of oiled silk lined with lint may be worn, in order to prevent the pillow-cases getting saturated, and thus causing irritation of the face by the child lying on the soiled places. Where a large extent of surface is involved, the following ointment may advantageously be used: Carbolic acid (pure), strong citrine ointment, and sulphur ointment, equal parts; to be made fresh every week. This is equal in value to Goa powder or chrysophanic acid ointment, and far less objectionable on many accounts. In chronic cases of the disseminated variety, Smith recommends the application of a drop of croton oil to the black dots or isolated stumps. The oil causes a pustule, from which the loosened stump can readily be removed with a pair of epilating forceps. Epilation is best performed beneath a strong lens, mounted on a firm stand, with a ball-and-socket joint. Some cases are met with which seem almost incurable, but fortunately these will always undergo a spontaneous cure when the child reaches the age of fifteen or seventeen. Internally, cod-liver oil and a fatty diet is advised, especially in strumous subjects.

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Letters to the Editor.

The Recent Meeting of the State Medical Society.

To the Editor of the New York Medical Journal.

Dear Sir: Will you allow me a few words apropos of your recent editorial upon the last annual meeting of the Medical Society of the State of New York? I was surprised at your statement that many more papers were read by title only than were actually read, and more or less adequately discussed. I wrote to the Secretary of the Society to get the official statistics on this subject, for my memory—having been present at the meeting—did not agree with this statement. He informs me that thirty papers were read in full—two by abstract, and that three gentlemen discussed matters with a fullness that would entitle their remarks to be considered as papers. Besides this, I can say of my own knowledge that quite a proportion of papers were "adequately discussed." Thirteen only were read by title. That this is too large a number we all will agree, but, as you will readily admit, there is no such disproportion between papers actually read and those only known by title as the "Journal" has stated.

You also remark that this state of things may "exert no little influence in prompting a county society to rebel against that relic of the feudal system which says, 'Order so many copies of our Transactions, and pay for them, or your delegates can not take part in our proceedings.'" The State Society has never made any such statement as this. The Committee on Registration very properly refused to register the delegates from the County of New York until they had paid their dues. These dues have nothing whatever to do with the Transactions. A delegation from the Academy of Medicine, from any of the colleges, or from any other county society, would have been also refused, had they neglected their duty in the same way. As a delegate from the University Medical College, I was once compelled to pay the dues for two preceding years before I was allowed to register. The facts about the Transactions are as follows: The State Society in a full meeting, at which New York County was completely and ably represented, resolved to publish its Transactions, and pay for them by an assessment on the counties, according to their representation. In return, it furnished the volumes to the counties in sufficient number to make the cost trifling. The officers of the New York County Society, as will be seen by my speech reported in full in your "Journal," had at the time of the last meeting failed to pay this tax. But the Society was not debarred from representation on this account. If it be a relic of a feudal system for a representative body to publish and provide for the cost of printing its Transactions in a perfectly fair manner, then feudalism has lost some of its terrors for me. As one who has attended many meetings of the State Society, and who has done his humble best in conjunction with scores of others to promote its scientific interests, and to prevent time from being taken up in discussing ethical and business matters, I venture to say that there is no society in the land that takes more pains to accomplish these ends.

Yours, very respectfully,

D. B. St. John Roosa.

⁂ As to the first of the two matters alluded to by our esteemed correspondent, he has misinterpreted our statement. We said: "Many papers of interest and value were presented, and more or less adequately discussed. Many more [meaning *many in addition*] were read by title only." In regard to the second point, we spoke upon information which we are very glad to believe, on the strength of Dr. Roosa's statements, to have been erroneous.

The Committee of Arrangements of the American Medical Association.

To the Editor of the New York Medical Journal.

Sir: At a meeting of the Committee of Arrangements of the American Medical Association, held April 9, 1880, Professor T. Gaillard Thomas, M. D., was unanimously elected Chairman of the Committee of Arrangements, in place of Dr. S. O. Vanderpoel, who recently resigned, and has gone abroad. Kindly insert this notice in the next number of your "Journal," and oblige the Committee.

Very respectfully,
W. R. Gillette, M. D., *Secretary.*

New York, *April* 12, 1880.

Miscellany.

American Medical Association.—The thirty-first annual session will be held in New York on Tuesday, Wednesday, Thursday, and Friday, June 1, 2, 3, and 4, 1880. ═══ The following are the chairmen and secretaries of sections:—Practice of Medicine, Materia Medica, and Physiology: Dr. J. S. Lynch, Baltimore, Md., *Chairman;* Dr. W. C. Glasgow, St. Louis, Mo., *Secretary.* Obstetrics and Diseases of Women and Children: Dr. Albert H. Smith, Philadelphia, Pa., *Chairman;* Dr. Robert Battey, Rome, Ga., *Secretary.* Surgery and Anatomy: Dr. W. T. Briggs, Nashville, Tenn., *Chairman;* Dr. C. Powell Adams, Hastings, Minn., *Secretary.* Medical Jurisprudence, Chemistry, Psychology, State Medicine, and Public Hygiene: Dr. Jas. F. Hibberd, Richmond, Ind., *Chairman;* Dr. Thos. F. Wood, Wilmington, N. C., *Secretary.* Ophthalmology, Otology, and Laryngology: Dr. Bolling A. Pope, New Orleans, La., *Chairman;* Dr. Eugene Smith, Detroit, Mich., *Secretary.* ═══ The following Committees are expected to report:—On Prize Essays: Dr. Austin Flint, New York, *Chairman;* On Necrology: Dr. J. M. Toner, Washington, D. C., *Chairman;* On Catalogue of National Library: Dr. H. C. Wood, Philadelphia, *Chairman;* On Ozone: Dr. N. S. Davis, Chicago, Ill., *Chairman;* On the Metric System: Dr. T. Parvin, Indianapolis, Ind., *Chairman;* On State Medical Societies: Dr. S. D. Gross, Philadelphia, *Chairman.* ═══ The following proposed amendments of the constitution will come up for action: Article II., second paragraph, after "Army and Navy" insert "and the Marine Hospital Service of the United States." Article II., fourth paragraph, at the end insert "the Marine Hospital Service of the United States shall be entitled to one delegate." ═══ The following proposed amendments of the by-laws will be acted upon: 1. Expunge from Section III. everything relating to prize essays, and the committee on prize essays. 2. Introduce into Section II. the following laws: *Prize Essays. a.* There shall be four annual prizes of two hundred and fifty dollars each, which shall be awarded at the close of the second year after announcement, as hereinafter explained, for strictly original contributions to medical and surgical progress. *b.* It shall be the duty of the chairman of each of the following four Sections: 1. Practical Medicine, Materia Medica, and Physiology; 2. Obstetrics and Diseases of Women and Children; 3. Surgery and Anatomy; 4. State Medicine and Public Hygiene, to appoint annually before the adjournment of the meeting of the Association three members of ability and good judgment, who shall constitute a Committee of Selection, and who shall, within thirty days thereafter, select and publicly announce for competitive investigation and report a subject belonging to one or other of the branches of medicine included in the title of the section. *c.* It shall also be the duty of the chairman of each of the sections mentioned to appoint annually a Committee of Award, consisting of three experts, who shall carefully examine the essays offered for competition, and, if any one shall be found worthy of the prize as a substantial contribution to medical knowledge, to recommend the same to the Association. *d.* All essays placed by their authors for competition shall be in the hands of the chairman of the respective Committees of Award on or before the first day of January preceding the meeting of the Association at which the reports of the committees are required to be made. *e.* All prize essays shall be considered as the property of the Association. *f.* The names of the authors of the competing essays shall be kept secret from the committees by such means as the latter may provide. *g.* Membership in either of the two committees shall not debar from membership in the other; nor shall membership in the Committee of Selection exclude a member from the privilege of offering a competing essay.

THE LIBRARY OF THE NEW YORK HOSPITAL.—The Report of the Librarian for the year 1879 informs us that six hundred volumes have been added to the library during the year; that there are now on its shelves more than twelve thousand volumes; and that it regularly receives ninety-five serial publications, including the leading journals, society transactions, hospital reports, etc. We are also informed that the number of visitors exceeded that of any previous year—a statement which is not at all surprising, in view of the quietude and general air of comfort which pervade the rooms devoted to the Library. A supplementary catalogue (No. V.) has recently been issued.

THE INTERNATIONAL OPHTHALMIC CONGRESS.—The Sixth International Ophthalmic Congress will be held at Milan, September 1, 2, 3, and 4, 1880. The address of the Executive Committee is Via S. Andrea, 13, Milano. The President, Professor A. Quaglino, states that the committee "will leave nothing undone to insure to its honorable colleagues a suitable reception with cordial and brotherly hospitality." Those who intend to be present should communicate with the President before the middle of June.

NEW MEDICAL JOURNALS.—"The College and Clinical Record" is a new monthly journal of sixteen double-columned, octavo pages, edited by Dr. Richard J. Dunglison and Dr. Frank Woodbury, and published in Philadelphia. It is conducted especially in the interest of the graduates and students of the Jefferson Medical College. It will doubtless serve to intensify the *esprit de corps* cherished by those gentlemen, and its pages should certainly prove of interest to the profession at large.═══ "The Medical Annals" is a journal of the Medical Society of the County of Albany. The first number contains sixteen handsomely printed pages, consisting largely of the minutes of the Society. We would especially commend the modest and manly tone of the editor's "prefatory."═══ "Gazzetta degli Ospitali" is the title of a new and very handsome semi-monthly journal of general medicine, published at Milan by the physicians of the Ospitale Maggiore. The first number contains forty-eight pages, and it is announced that future numbers will consist of from two to four sheets. ═══ We have received three numbers of the first volume of the "Archiv für Kinderheilkunde," edited by Dr. A. Baginsky, of Berlin, and Dr. M. Herz and Dr. A. Monti, of Vienna. The journal is published at Stuttgart, by Ferdinand Enke. It makes a handsome appearance, and its contents, consisting of original communications, abstracts, and reviews, are excellent.

Army Intelligence.—*Official List of Changes of Stations and Duties of Officers of the Medical Department of the United States Army, from March 14, 1880, to April 13, 1880.*—By S. O. 74, A. G. O., April 3, 1880, the following changes are made: Jaquett, G. P., Assistant Surgeon, is relieved from duty in Department of the South and assigned to temporary duty at David's Island, New York Harbor, relieving Surgeon A. K. Smith. Surgeon Smith when relieved will report in person to C. O., Department of Arizona, for duty as Medical Director of that Department, relieving Surgeon J. C. McKee. Surgeon McKee, when relieved, will proceed to New York City, and report his arrival to the Surgeon General. ═══ The following-named officers are relieved from duty in the departments set opposite their respective names, and will report in person to the President of the Army Medical Examining Board, in New York City, for examination for promotion, and, upon completion of examination, report by letter to the Surgeon General: Weisel, Daniel, Assistant Surgeon, Department of the Columbia; Harvey, P. F., Assistant Surgeon, Department of Dakota; Winnie, C. K., Assistant Surgeon, Department of the Platte. ═══ Harvard, V., Assistant Surgeon, is relieved from duty in Department of the South, and will report to President of Army Medical Examining Board, New York City, for examination for promotion, and, upon completion of examination, in person to Commanding General, Department of Texas, for assignment to duty. ═══ The following-named officers are relieved from duty in the departments set opposite their respective names, and will proceed to New York City, reporting arrival to the Surgeon General: Goddard, C. E., Surgeon, Department of Texas; Meacham, F., Assistant Surgeon, Department of Texas; Ainsworth, F. C., Assistant Surgeon, Department of Arizona; Price, C. E., Assistant Surgeon, Department of California; Wood, M. W., Assistant Surgeon, Department of the Platte. Shannon, W. C., Assistant Surgeon, Department of Texas. ═══ Tesson, L. S., Assistant Surgeon, is relieved from duty in Department of Dakota, ordered to St. Louis, Missouri, and report arrival to Surgeon General. ═══ Reed, W., Assistant Surgeon, is relieved from duty in Department of Arizona, will proceed to Richmond, Virginia, and report arrival to the Surgeon General. ═══ Horton, S. M., Major and Surgeon, assigned to duty as Post Surgeon at Fort Douglas, Utah Territory. S. O. 30, Department of the Platte, April 6, 1880.

United States Marine-Hospital Service.—*Official List of Changes of Stations and Duties of Medical Officers of the United States Marine-Hospital Service.—January 1, to March 31, 1880.*—Bailhache, O. H., Surgeon. Detailed as President Board of Examiners to convene in Washington, January 26, 1880. January 14, 1880. ═══ Miller, T. W., Surgeon. Detailed as member Board of Examiners to convene in Washington, January 26, 1880. January 14, 1880. To proceed to Chattanooga, Tennessee, as inspector. January 28, 1880. ═══ Wyman, Walter, Surgeon. Granted leave of absence for twenty-one days from February 7, 1880. February 6, 1880. ═══ Murray, R. D., Surgeon. Granted leave of absence for twenty days from April 10, 1880. March 16, 1880. ═══ Fessenden, C. S. D., Surgeon. Detailed as recorder Board of Examiners to convene Washington, January 26, 1880. January 14, 1880. ═══ Fisher, J. C., Assistant Surgeon. To report to Board of Examiners for examination for promotion. January 28, 1880. ═══ White, Robert, Jr., Assistant Surgeon. Granted leave of absence for thirty days on account of sickness, from February 23, 1880. February 21, 1880. ═══ O'Connor, F. J., Assistant Surgeon. To proceed to Evansville, Indiana, and assume charge of the service at that post. March 17, 1880. ═══ *Death.*—White, Robert, Jr., Assistant Surgeon. At New York, N. Y., February 24, 1880.

THE
NEW YORK
MEDICAL JOURNAL.

JUNE, 1880.

Original Communications.

THE DIAGNOSIS OF TUMORS OF THE MAMMARY GLAND.*

By SAMUEL W. GROSS, M. D.,
SURGEON TO, AND LECTURER ON CLINICAL SURGERY IN, THE JEFFERSON MEDICAL COLLEGE HOSPITAL, AND THE PHILADELPHIA HOSPITAL, ETC.

In the formation of a correct diagnosis of mammary tumors it is of the last importance that both breasts be fully exposed, and that the patient be placed in the recumbent posture. With regard to the first point little may be said, as a comparison of both glands frequently serves to clear up features which were obscure when the examination was confined to one alone. In many women who have borne children, and the more especially if the breasts be lax, if, as too commonly occurs, the organ be explored when it is partially confined by the corset, and it be seized between the thumb and fingers when the patient is seated, an enlarged or apparently enlarged lobe may be felt, which conveys the impression of a distinct tumor. If, however, the patient be recumbent, and the gland be permitted to rest in its normal position, gentle pressure with the fingers backward toward the chest will show that the supposed neoplasm has disappeared; while, if one really exist, it will not only not elude this mode of manipulation, but be rendered more prominent. The presence of a new growth having been determined, the first desire of the surgeon is to ascertain whether it be of a carcinomatous or a non-carcinomatous nature. With the view of facilitating this step of the inquiry, the affinities and contrasts of these two great clinical divisions are arranged in the subjoined tabular form, and are based upon a study of their antecedents, and of the prominent points in their general pathology. The non-carcinomatous neoplasms include fibroma, sarcoma, myxoma, and adenoma.

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* Extracted from Dr. Gross's forthcoming work entitled "A Treatise on Tumors of the Mammary Gland: embracing their Histology, Pathology, Diagnosis, and Treatment." New York: D. Appleton & Co.

Carcinomatous Tumors.*	Non-Carcinomatous Tumors.†
Age of Development.	
Appear, on an average, at the forty-eighth year. 77·26 per cent. develop after the age of forty, and never before the twentieth year. In impubic girls the idea of cancer may be discarded.	Appear, on an average, at the thirty-third year. 30·37 per cent. develop after the age of forty; 15·15 per cent. before the twentieth year; and 5·18 per cent. before the establishment of menstruation.
Social Condition	
88·22 per cent. of the patients were, or had been, married, and 11·77 per cent. were single. Of the former, 83·91 per cent. had borne children, and 16·09 per cent. were sterile.	61 per cent. were, or had been, married, when the tumor was first observed, and 38 per cent. were single. Of the former, 86 per cent. had borne children, and 14 per cent. were barren.
Menstrual Function.	
61·5 per cent. were menstruating when the growth was first detected.	93 per cent. were menstruating when the tumor was first noticed.
Hereditary Predisposition.	
Traceable to heredity in 11·28 per cent. of all cases.	Do not appear to be inherited.

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* The conclusions are drawn from an analysis of 712 cases.

† Based upon a study of 138 cases.

Injury and other exciting Causes.

The influence of trauma is seen in 11·70 per cent. of all instances. There was an antecedent lump after puerperal mastitis in 8·21 per cent., and eczema of the nipple in 1·03 per cent. of all cases.	Ascribable to injury in 11·94 per cent. of all cases, and to eczema in 1·44 per cent. In 1·44 per cent. there was antecedent mastitis.

Situation.

Most common at upper and outer margin, and not infrequent near the nipple.	Usually at the upper and inner circumference. Rarely near the nipple.

Outline.

Irregular, slightly tuberous, knotted or knobby, frequently discoid, and merged into the surrounding tissues.	Round, ovoid, rarely discoid, lobed, bossed, or nodular, and distinctly circumscribed.

Consistence.

Uniformly densely hard and inelastic throughout, except in rare instances of combination with an involution cyst, when there is a limited spot of fluctuation. As an exception, may be firm and elastic, or even soft and fluctuating.	All are firm or hard at first, and frequently elastic; but not a few are soft later. Many are of unequal consistence, when they have existed for some time, in which event they are hard at some points, and soft, or even fluctuating, at others.

Multiplicity.

Several tumors are present in the same breast in 2 per cent. of all cases.	Several tumors present in the same breast in 5·97 per cent. of all cases.

Volume and Rate of Growth.

Never reach the dimensions of the simple tumors, and usually smaller than the breast which they have replaced. Grow continuously and comparatively slowly, and are quite liable to shriveling of the stroma, particularly when they occur late in life.	May attain a huge size. Frequently increase by fits and starts; grow comparatively rapidly; and do not, except in rare cases of fibroma, undergo cicatricial atrophy.

Mobility.

Move with the gland of which they form a part, and can not be isolated. Attachments to the skin and chest are common and frequently extensive.	Glide and roll under the fingers, and move freely within the mamma and on the adjacent parts; or, if there be attachments, which are exceptional, they are limited.

Relations to Breast.

If the tumor develops within the substance of the mamma, the latter is replaced by it, and its structure is destroyed. When it begins at the periphery, the gland is always finally invaded.	Now and then attached to the breast by a pedicle; but the gland is usually pushed to one side, spread out, or atrophied, and rarely invaded.

State of the Nipple.

The nipple is permanently retracted and fixed in 52 per cent. of all cases, and is often infiltrated.	The mamilla, in 5·22 per cent. of all instances, is displaced, buried, or sunken, by the growth of the tumor beyond its level. Hence it is mobile and not truly retracted, and it is not infiltrated.

Discharge from the Nipple.

A thin sanguinolent discharge is met with in 9 per cent. of all cases, but it is never copious.	A discharge, usually of a mucoid nature, is seen in 8·95 per cent. of all instances; and the escape of a bloody fluid favors the idea of vascular vegetations in dilated ducts.

Superficial Veins.

The subcutaneous veins are somewhat prominent in 2 per cent. of all cases.	The superficial veins are enlarged and prominent in 13·43 per cent. of all examples.

Condition of the Skin.

The skin, even when the tumor is not larger than a hazel-nut, provided it be superficial, is dimpled and adherent. In larger growths, it is adherent, thinned, or discolored, or rigid and brawny from specific infiltration, in 34·54 per cent. of all cases; and the seat of distinct nodules in 10·61 per cent.	The skin is natural when the tumor is of moderate dimensions, but thinned and stretched, or discolored, or adherent, in 31·34 per cent. when the neoplasm is voluminous. It is never dimpled nor the seat of secondary tubers.

Fixation to the Chest.

The tumor is attached to the pectoral muscle or thorax in 21·58 per cent. of all instances.	The tumor adheres to the subjacent structures in 2·98 per cent. of all cases.

Both Breasts affected.

The disease extends to the opposite breast in 3·65 per cent. of all examples, but never before infection of the skin and the lymphatic glands.	The other mamma contains a similar growth in 5·22 per cent. of all cases, but without antecedent skin or gland involvement.

Ulceration.

The formation of an ulcer ensues, comparatively early, in 23·77 per cent. of all cases. The edges of the sore are everted, thick, and indurated, and adherent to the hardened base. It never attains the size met with in the simple tumor, does not fungate, nor does it cicatrize to any great extent.

Ulceration, or limited gangrene, of the stretched and thinned integuments occurs, late in the disease, in 16·41 per cent. of all instances. It is generally attended with the protrusion of a pedunculated fungus, which is not attached to the margins of the ulcer, the edges of which are smooth, even, and not discolored or infiltrated. The base is usually composed of intracanalicular vegetations, and it now and then heals.

Lymphatic Glands.

The axillary glands are enlarged and hard, when the patient first comes under observation, in 64·23 per cent. of all cases, and in one out of every 22 instances the glands of the neck are also involved.

Enlargement of the glands of the axilla is met with in 2·98 per cent. of all examples; but it is due almost solely to irritative changes, and they are not hard. The supraclavicular glands are never implicated.

General Condition.

The general health of the patients is, as a rule, wonderfully good, when they first come under observation.

The same statement is true of the non-carcinomatous growths.

Local Recurrence.

Reproduction after operation is met with in 80·97 per cent. of all cases.

The tumor recurs after extirpation in 27·05 per cent. of all instances.

Duration of Life.

The average life from the first observation of the disease to the final report after its removal is forty months; but the majority of the patients were dead.

The average life is rather more than seventy-two months; but the majority of the subjects were still living.

In the differential diagnosis of the cancerous and so-called benign neoplasms the deductions based upon the study of their etiology are, as I have already pointed out, for the most part, without value. Hereditary predisposition, when it can be traced, is an antecedent which favors the idea of carcinoma; but it must not be forgotten that the most innocent formation, as in the case of a retention cyst, occurring in a lady, forty-three years of age, who was recently under my charge, not infrequently occurs in the daughter of a cancerous mother. So, too, the development of a tumor after the age of forty out of an induration left by puerperal mastitis, points to cancer, as that condition antedated 8·21 per cent. of the carcinomatous, and only 1·44 per cent. of the non-carcinomatous growths.

Age, as an indication of the anatomical arrangement of the component tissues of the mamma, is, as I have previously shown, so important an aid in the diagnosis that a neoplasm occurring before the twentieth year may safely be pronounced to belong to the non-carcinomatous group, while the chances in favor of carcinoma are as twelve to one after the age of forty. To be more exact, I have framed the following conclusions in regard to the structural development of the mamma, as manifested by the age of the patients, and the development of its neoplasms:

First. During the rudimentary condition of the organ almost the only growth met with is fibroma.

Secondly. When the glandular structure is being evolved, after the appearance of the menses, and the connective tissue is still in excess, fibroma and fibrous sarcoma are the most common growths.

Thirdly. At the epoch of and after the first pregnancy, that is, between twenty and thirty years, when the glandular structure is perfected and the connective tissue is vascular, succulent, and rich in cells, fibromata and small round-celled, or small spindle-celled sarcomata, which are equivalent to medullary sarcomata, are to be anticipated.

Fourthly. From the thirtieth to the fortieth year, or during the stage of passive maturity, cystic sarcomata and cystic fibromata are most frequently met with, and true adenoma is also most common.

Lastly. During the period of involution, when the lacteal glands are disappearing, and the connective and adipose tissues are becoming abundant, myxoma and carcinoma make their appearance.

Of the symptoms themselves, valuable information is to be derived from the consistence, dimensions, isolation, and mobility of the growth, as well as the condition of the skin, nipple, subcutaneous veins, and the associated glands. As the majority of these signs have been sufficiently dwelt upon in the preceding table, I will only direct attention to those which are the most important.

In the non-carcinomatous tumors the skin, while it may be thinned, stretched, and discolored, or somewhat adherent, is rarely invaded by cell infiltration, and is never the seat of distinct nodules or tubers. In carcinoma, on the other hand, its infiltration by advancing epithelial cells gives rise to a hard, brawny condition, which is very characteristic, or to extensive adhesion, or discoloration, or to distinct tubers, and it is not infrequently pervaded by beaded or varicose lymphatics, which, so far as I know, are never seen in the opposite class of tumors.

While ulceration is less frequent in the non-carcinomatous than in the carcinomatous growths, it also arises in a very different way, and has certain peculiarities which are distinctive. Thus, it is the almost invariable result of limited gangrene of the thinned and stretched, but not infiltrated, skin; while its edges are smooth, soft, and sometimes elevated upon the fungus which protrudes through, without being attached to, it. Such an appearance is peculiar to the non-carcinomatous growths, and is, of itself, quite sufficient to exclude the idea of carcinoma.

The nipple is permanently retracted in more than one half of the cases of carcinoma, while it is sunken, by the protrusion of the tumor beyond its level, in only one out of every twenty of the non-carcinomatous neoplasms. This contrast is most striking, but it is not more so than one might expect, when the contracting nature of carcinoma is borne in mind. When, in addition to the retraction, the mamilla is also fixed and indurated, these conditions may almost be regarded as pathognomonic of carcinoma. Discharge from the nipple merely indicates that the glandular structure is involved, either primarily or secondarily, and that one or more of the ducts leading from the secreting lobules are permeable. When it antedates the detection of a tumor, there is every probability that the growth is an adenoma. If the neoplasm has a solid and hard feel, it is probably a carcinoma, since a discharge is only met with in the cystic non-carcinomatous tumors.

Fixation, or adhesion, to the walls of the chest is a valuable symptom of carcinoma, inasmuch as it is ten times more frequent, and far more extensive, than in the opposite class of growths.

Of all the signs, there is none which is so valuable in the differentiation as the state of those lymphatic glands which are in anatomical connection with the breast. Thus, in every one hundred cases of carcinoma, when the patient first comes under observation the axillary glands will be found to be enlarged and indurated in sixty-four, and in nearly one third of these the glands above the clavicle will also be contaminated. Of the non-carcinomatous tumors, on the other hand, out of every one hundred cases, in only three are the axillary glands enlarged, while they are never densely hard. The glands above the clavicle are never implicated.

The diagnosis of the non-carcinomatous neoplasms is based, therefore, upon their occurrence in one case out of every six and two thirds before the age of twenty; their greatest frequency before the fortieth year; their multiplicity in one breast; their circumscribed, rounded or ovoid and bossed outline; the firm consistence of the smaller and the unequal feel of the larger; their mobility in or on the breast and the adjacent tissues; their comparatively rapid growth and large volume; the almost normal appearance of the skin; the enlargement of the superficial veins when they are bulky; their tendency to ulcerate and fungate late in the disease; and the absence of adhesions between the protrusion and the circular and, as it were, punched-out margins of the ulcer; and, finally, their freedom from a history of hereditary predisposition, retraction of the nipple, and enlargement of the associated lymphatic glands.

The points in favor of carcinoma are a history of heredity; non-development before the twentieth year; greatest frequency after the fortieth year; irregular, knobby outline; uniformly densely hard consistence; immobility in the breast; relatively small volume and slow growth; retraction of the nipple; enlargement and induration of the lymphatic glands; invasion of the skin; fixation to the pectoral muscle or walls of the chest; limited ulceration, late in the disease, without any tendency to fungous protrusion; and the thickened, indurated, and everted edges of the ulcer.

The gross anatomical characters of these two classes of neoplasms are sufficiently characteristic for diagnostic purposes. The carcinomatous are not surrounded by a limiting capsule, so that their attachments are so close that they are with difficulty freed from the adjacent skin, fat, fasciæ, and muscles. On section, they are firm, crisp, tough, and often creak under the knife. Their cut surfaces assume a concave appearance, are not lobed or cystic, and can not be torn into small bundles; and their grayish basis is traversed by minute points of fat or by yellow lines, which represent the remains of ducts with their contents in a state of fatty degeneration. They are also frequently pervaded by glistening white fibrous bands, so as to look like the section of an unripe pear, and a pultaceous, milky fluid exudes from them on pressure or scraping.

The non-carcinomatous neoplasms are surrounded by a fibrous capsule, through which they can readily be detached from the surrounding tissues. Although they may be tough, they rarely creak on section, and their divided surfaces are plane, or they may even be prominent, and are never concave. Many, and particularly the sarcomata, have a fibrous tear, which is very characteristic, and not a few are lobed. They are not streaked by yellowish lines, nor do they contain pellets of fat. They are, moreover, frequently the seat of dilated ducts and vegetations, and exude a serous fluid on pressure. An open-mouthed duct, or a small cyst or two, may be found in carcinoma, but they are, with very rare exceptions, free from vegetations. On the whole, the presence of a limiting capsule and of enlarged ducts and vegetations, and the absence of fat and concavity on section, are quite sufficient to distinguish the non-carcinomatous from the carcinomatous tumors.

Having convinced himself of the non-carcinomatous nature of the neoplasm, the surgeon has still before him the solution of the problem as to whether it is solid or cystic. Although the latter merely represents a further stage of evolution of the former, there are some important points of difference between them which render their differentiation comparatively easy.

NON-CARCINOMATOUS NEOPLASMS.

Solid Form.	Cystic Form.
Age of Occurrence.	
Develops, on an average, at the thirty-first year. 8 per cent. appear before the age of sixteen; 56 per cent. originate during the period of the perfection of the mamma; and 36 per cent. are observed during its functional decline.	Appears, on an average, at the thirty-fifth year. 1·75 per cent. occur before the sixteenth year; 38 per cent. develop between sixteen and forty years; and 60 per cent. are witnessed after the age of forty.
Consistence.	
Equable, whether they be firm or soft.	Variable or unequal, being firm at some points, and soft or fluctuating at others.
Volume and Rate of Growth.	
Increases slowly, and rarely attains a considerable bulk.	Grows quite rapidly, and sometimes acquires enormous dimensions.
Condition of the Skin.	
The skin is discolored in 9·83 per cent., and adherent in 8·19 per cent., of all instances.	The skin is discolored in 26·02 per cent., and adherent in 16·43 per cent. of all cases.
Superficial Veins.	
The subcutaneous veins are enlarged in 4·91 per cent. of all cases.	The superficial veins are enlarged in 17·80 per cent. of all cases.
State of the Nipple.	
The nipple is buried or sunken in 1·63 per cent. of all examples.	The mamilla is depressed or sunken in 8·21 per cent. of all instances.
Discharge from the Nipple.	
Discharge from the nipple is unknown.	The nipple discharges in 16·43 per cent. of all cases.
Fixation to the Chest.	
The tumor is always mobile on the chest.	The growth is attached to the pectoral muscle or ribs in 4·10 per cent. of all instances.

Ulceration.

Spontaneous ulceration occurs in 6·55 per cent. of all cases.	Spontaneous ulceration is met with, and generally with fungous protrusion, in 24·63 per cent. of all cases.

Lymphatic Glands.

The glands of the axilla are enlarged in 1·63 per cent. of all examples.	The axillary glands are enlarged in 4·10 per cent. of all cases.

From the preceding analysis it will be seen that the solid tumors present themselves simply as circumscribed growths, which have an equable consistence, grow slowly, are of moderate volume, and are not characterized by alterations in the associated or contiguous structures. The cystic neoplasms, on the other hand, have a variable consistence, grow rapidly, and attain a large volume, and are quite liable to changes in the skin, prominence of the subcutaneous veins, limited superficial adhesions, spontaneous ulceration and fungous protrusion, and a discharge from the nipple. When the mamilla is deformed, the tumor is partially fixed to the chest, and the lymphatic glands are swollen. All of these signs are far more frequent in the cystic than in the solid form. The preceding phenomena, however, do not occur with equal frequency in the different solid and cystic growths, as is set forth in the following statement, which affords important clews to their differential diagnosis.

	SOLID.				CYSTIC.			
	Fibroma.	Sarcoma.	Myxoma.	Adenoma.	Fibroma.	Sarcoma.	Myxoma.	Adenoma.
Average age of development..	23 yrs.	37 yrs.	45 yrs.	16 yrs.	36 yrs.	33 yrs.	48 yrs.	35 yrs.
The skin is discolored in....	None.	16 p. c.	40 p. c.	None.	10 p. c.	34·28 p. c.	33·33 p. c.	26·66 p. c.
The veins are enlarged in...	"	8 "	20 "	"	15 "	25·71 "	None.	6·67 "
The nipple is deformed in	"	None.	20 "	"	10 "	5·71 "	"	13·33 "
Discharge from the nipple in.	"	"	None.	"	15 "	14·28 "	"	26·66 "
Superficial adhesions in......	"	12 p. c.	20 p. c.	"	10 "	8·57 "	33·33 p. c.	40
Deep adhesions in............	"	None.	None.	"	10 "	2·85 "	None.	None.
Ulceration in...	"	12 p. c.	20 p. c.	"	10 "	31·42 "	33·33 p. c.	26·66
Axillary glands enlarged in...	"	None.	20 "	"	None.	2·85 "	None.	13·33 "

In the discrimination between the solid and cystic growths, invaluable aid may be derived from the exploring needle or a slight puncture. In the event of the tumor being solid, nothing, save, perhaps, a little blood, comes away; whereas, if it be cystic, the discharge of its watery or sanguinolent contents will tend to diminish its volume very materially, and it may even be possible to feel the solid vegetations which have been obscured by the presence of the fluid. From simple cysts of the mamma, the diagnosis rests upon the fact that the cystic neoplasms do not entirely disappear after the evacuation of the cavities, while from chronic abscess, which not infrequently simulates a cystic growth, the distinction is based upon a drop of pus following the withdrawal of the exploring needle.

The differential diagnosis of the varieties of carcinoma may be determined by attention to their contrasts and affinities, which are set forth in the subjoined table :

	Scirrhous.	Medullary.	Colloid.	Atrophying.
Average age...............	48 yrs.	50 yrs.	45 yrs.	47 yrs.
Consistence................	Never soft.	Soft in 66 p. c.	Partly soft in 7·69 p. c.	Never soft.
Veins prominent...........	2·08 p. c.	9·09 p. c.	23·07 p. c.	0 p. c.
Nipple retracted...........	52 "	33·33 "	30·72 "	100 "
" discharging	9 "	0 "	15·38 "	0 "
Glands infected	64·23 "	59·02 "	23·07 "	52·94 "
Skin adherent..............	34·54 "	52·92 "	23·07 "	58·82 "
Nodules in skin............	10·61 "	5·88 "	7·69 "	17·64 "
Ulceration....	23·77 "	18·18 "	15·38 "	41·17 "
Fixation to chest...........	21·58 "	29·41 "	15·38 "	35·29 "
Nodules in pectoral muscle.	7·06 "	11·76 "	15·38 "	57·14 "
Both mammæ	3·65 "	9·09 "	15·38 "	5·88 "

Although the lines of demarkation between many of the tumors of the mamma are not very distinct, yet a careful attention to their more prominent signs enables one to arrive at a pretty correct judgment as to their true nature. From an analysis of the cases that have occurred in my own practice, and of those collated from various sources, I have framed the following conclusions :

1. A uniformly hard, perfectly movable, nodular, slowly growing tumor, particularly if it be seated at the upper and outer part of the gland of impubic subjects and of married women toward the twenty-third year, and be free from ulceration, alterations in the skin, veins, nipple, and lymphatic

glands, is a solid fibroma, and the diagnosis is strengthened by the presence of several growths in one or both breasts.

2. A hard, lobulated, peripheral tumor, or one which, after having remained stationary or progressed slowly for several years, suddenly and rapidly acquires a large volume, assumes an unequal consistence, being firm at some points and soft or fluctuating at others, occurring toward the thirty-sixth year, unaccompanied by lymphatic involvement, but attended, possibly, with discoloration of the skin, deformity of the nipple, and limited superficial adhesions, and, it may be, with dilatation of the veins, discharge from the nipple, and ulceration and fungous protrusion, is a cystic fibroma.

3. A firm, rapidly growing, peripheral tumor, appearing in prolific married females at about the thirty-seventh year, with, possibly, discoloration and adhesion of the skin, and ulceration, but without deformity of, or discharge from, the nipple, or enlargement of the glands, is a solid sarcoma. A tumor possessing these attributes and occurring toward the thirty-second year is probably a firm spindle-celled sarcoma, while one developing at about the forty-second year is more apt to be a firm round-celled sarcoma.

4. A lobulated tumor, particularly if it involves the greater part of the mamma, of quick growth from the commencement, or progressing rapidly after having increased comparatively slowly for some time, of large size, of varying or unequal consistence, occurring toward the thirty-third year, in prolific married subjects, and attended with discoloration of the skin, ulceration, enlargement of the veins, and, possibly, with discharge from the nipple and limited adhesions, or, it may be, with deformity of the nipple and glandular enlargement, is a cystic sarcoma. A very rapidly progressing tumor, of soft, apparently fluctuating consistence, with stretched skin and enlarged veins, appearing in young girls before puberty and in young married women, is a medullary sarcoma, which may be solid or cystic, and is, as a rule, composed of small spindle cells.

5. A solitary, rapidly and continuously growing, although not very bulky, rather firm, or, possibly, soft tumor, occurring at about the forty-fifth year, with limited discoloration of the

skin, but not fixed to the chest, and attended, possibly, with deformity of the nipple, superficial adhesions, ulceration, dilatation of the veins, and enlargement of the axillary glands, is a solid myxoma.

6. Cystic myxoma possesses the same consistence and growing attributes of the former variety, but it develops at about the forty-eighth year, and is liable to be attended with discoloration, adhesion, and ulceration of the skin. The veins, nipple, and glands, however, are normal.

7. A hard, heavy, nodular, solitary, very slowly and equably increasing tumor, especially if it develops in the immediate vicinity of the nipple of a married woman toward the thirty-fifth year, and is accompanied by adhesion and discoloration of the skin, and ulceration, and, possibly, by deformity of the nipple and enlargement of the glands, but is free from fixation to the chest and dilatation of the veins, and is preceded by a discharge from the nipple, is a cystic adenoma. A solid adenoma can not be distinguished from a solid fibroma.

8. A densely hard, inelastic, irregular, solitary, slowly growing tumor, occurring in prolific married females toward the forty-eighth year, inseparably connected with the mamma, accompanied by induration and enlargement of the associated lymphatic glands, retraction of the nipple, infiltration of, and, possibly, nodules in, the skin, ulceration, and fixation to the chest, and, it may be, by a discharge from the nipple, is a scirrhous carcinoma; and the diagnosis is strengthened if there be a history of heredity, if the tumor was preceded by psoriasis or eczema of the nipple, or if it developed from an induration left by puerperal mastitis.

9. A soft, lobulated, voluminous, solitary, and rapidly increasing tumor, occurring in the same class of women, at about the fiftieth year, and attended with infection of the glands and skin, retraction of the nipple, fixation to the chest, and, possibly, extension to the opposite breast, but without discharge from the nipple, or marked tendency to prominence of the veins or ulceration, is a medullary or encephaloid carcinoma.

10. A hard, very slowly growing, small, solitary tumor, occurring toward the forty-fifth year, with adhesion to the

skin, and, it may be, nodules in that structure, prominence of the veins, retraction of the nipple, and enlargement of the glands, and, possibly, with invasion of the opposite breast, fixation to the chest, ulceration, and discharge from the nipple, is a colloid carcinoma.

11. A densely hard, irregular and knotty, contracting and small, solitary tumor, occurring at about the forty-seventh year, and attended with retraction of the nipple, infection of the glands and skin, and, possibly, distinct tubers in the latter structure, ulceration, and immobility on the chest, is an atrophying scirrhus.

12. A slowly increasing, solitary, nodular, or slightly lobulated tumor, occurring after the menopause, covered by thinned and discolored skin, fluctuating, and, probably, discharging by the nipple, but without enlargement of the veins or glands, and without fixation to the chest, is an involution cyst.

13. A solitary, smooth, firm and elastic, or, possibly, fluctuating tumor, occurring in the vicinity of the nipple of young and prolific married women, of moderate volume, of slow growth, and unattended with alterations in the veins, nipple, skin, or glands, or with adhesions, but liable to ulceration and enlargement of the glands if it inflames, is an evolution cyst.

14. A solitary, slowly growing, not bulky, fluctuating, or semisolid tumor occurring near the nipple of lactating women, and unattended with changes in the coverings of the mamma or in the glands, is a lacteal cyst.

15. A slowly growing, small, smooth, round, firm and elastic, or fluctuating, solitary tumor, occurring between the ages of twenty and thirty years, seated at the upper and outer border of the breast, and not near the mamilla, with a disposition to ulcerate, but without other changes in the skin, veins, or glands, is an hydatid cyst.

A CASE OF SPONTANEOUS GANGRENE OF THE TESTICLE.*

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Spontaneous gangrene of the testicles is caused, as demonstrated by Miflet's experiments on animals,† undertaken at the instance of Richard Volkmann, by circulatory disturbances, especially by embolism of the internal spermatic artery, with consecutive hæmorrhagic infarction. It was likewise shown that occlusion of the artery of the vas deferens resulted in the loss of vitality of the epididymis. As a contribution to the rather scanty literature of the subject, the following case may be of interest.

The patient, a butcher, thirty-nine years of age, of perfectly healthy family, contracted orchitis on the right side, without appreciable cause, in August, 1879. The invasion was characterized by severe pain, which soon yielded to the ordinary remedies, the organ remaining considerably swollen. Hydrocele having developed shortly after, the medical attendant aspirated the tumor, and found it necessary to repeat the operation every fourth or eighth day, on account of the rapid refilling of the cyst. The quantity of fluid evacuated at the first tapping was about 180 grammes. The amount gradually decreased with each successive tapping, but the patient soon noticed that the size of the testicle, which was very much enlarged, did not seem to be influenced by the operation. About the end of December the fluid evacuated was sanious, and later on it became decidedly bloody. Another physician who attended the case tapped the hydrocele six times with a trocar in January, but withdrew only fluid blood. The last tapping, on January 30, 1880, was followed by a considerable increase in the swelling, and by violent pain radiating upward as far as the posterior lumbar region. The patient was seized with a rigor, followed by dryness and heat of the skin, and was obliged to take to his bed. The testicle continued to swell, and became hard, brawny, and of a dusky-red color, and the pain grew intolerable. At this stage the patient sought relief at the German Hospital, where he was received on the 3d of February. His temperature on admission was 104·5° F., the face expressing great anxiety and suffering, as in peritonitis. He declared that he had never been ruptured.

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* Read before the New York Pathological Society.

† "Archiv für klin. Chir.," xxiv., 3, p. 399.

The scrotum was tensely distended, of about the size of a man's head, the right half being of a dark-red color, shining, and emitting on percussion a sonorous, tympanitic resonance, as far up as the inguinal region. The other half of the scrotum was of a waxy color, and tensely œdematous; the testicle could not be felt. The symptoms pointed to hæmatocele containing gas. The absence of all tenderness on pressure over the abdomen rendered the existence of a strangulated hernia improbable. In view of the impending gangrene of the scrotum, it was decided to operate at once. The tissues were divided layer by layer, by an incision carried over the full length of the right half of the scrotum. Very little blood was lost, but a considerable quantity of serum escaped from the interstitial tissue, and inodorous gas-bubbles were liberated, with audible crepitus, at each stroke of the knife. The incision into the tunica vaginalis propria testis, which was considerably thickened, coated with firm blood-coagula, and of a bluish-black color in the line of section, gave exit to a large amount of inodorous gas, bloody serum, and dark, grumous clots. The testicle, equal to a goose's egg in size, was abnormally soft. The tunica albuginea was of a dark-brown color. The substance of the testis had a cooked appearance, and did not bleed when cut into; at its center it was of a yellowish-gray tint, and of the consistence of porridge, but somewhat firmer nearer the periphery. The epididymis was likewise largely increased in size, bluish-black, and entwined by plethoric veins, which ramified upward around the cord, which latter was as thick as one's thumb. On cross-section, it showed the same brownish-black, bloodless, mottled surface as the peripheral parts of the testis.

The local and general manifestations of septic absorption demanding the complete removal of all sphacelated tissue, the cord was isolated, ligated close to the external abdominal ring, and divided below. The section surface was dry. The broken-down tunica vaginalis and the discolored scrotal connective tissue, which latter did not bleed, were removed. The excised tissues had a stale, sweetish odor, but no putrid smell.

Tension in the other half of the scrotum was relieved by multiple puncture; the wound was washed out with a ten per cent. solution of zinc chloride, packed with carbolized gauze, and the usual antiseptic dressing applied. The patient, considerably weakened, was soon restored by the plentiful administration of whisky and by warm covering, and expressed himself as free from pain. During the first hour succeeding the operation his temperature fell to 103°, in the second hour to 101·5°, and by the fourth it had reached 99·75°, after which it remained nearly normal. Shortly after the operation profuse perspiration set in, and the patient passed the night very comfortably and painlessly. The bladder was emptied with a catheter at regular intervals until February 12th.

About twenty-six hours after the operation, the patient was seized with violent abdominal pain and moderate tympanites, which was subsequently ascertained to have depended on the retention of fæces. The wound remained aseptic; the chloride-of-zinc sloughs were promptly detached, and by the 6th of February the scrotum had recovered its ordinary wrinkled appearance. The patient was discharged cured February 26th.

Microscopic examination of the preparations, which had been hardened in alcohol, revealed profound pathological changes in the elementary structure and in their anatomical arrangement. The sections were stained partly with picro-carmine and partly with the mixture of indigo-sulphate of soda and picric acid, according to Noeggerath's formula.

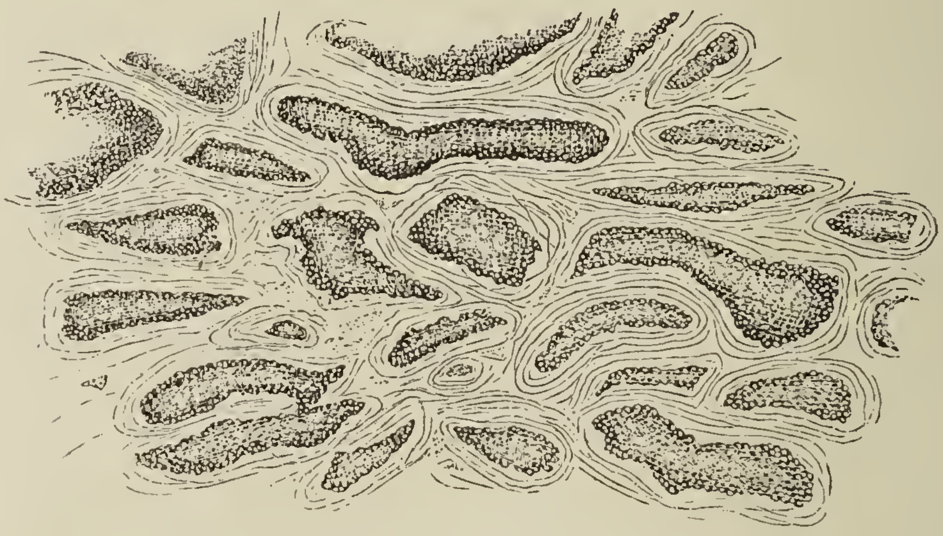

FIG. 1.—NORMAL TESTICLE. (Hartnack, 70 diam.)

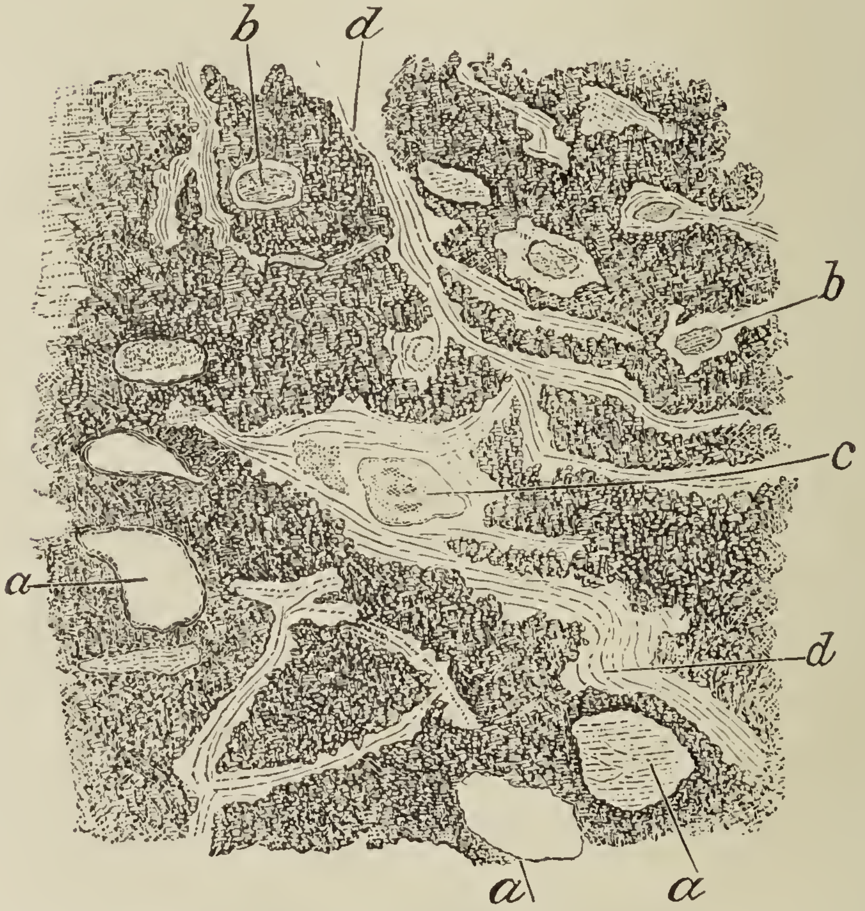

FIG. 2.—*a*, Seminal canaliculi; *b*, blood-vessels; *c*, a large artery; *d*, irregular bands of connective tissue. (Hartnack, 70 diam.)

The peripheral portions of glandular tissue hardly showed traces of their original structure or substance. Owing to the more or less complete granular disintegration of the connective tissue throughout, the tubuli seminiferi frequently could not be distinguished from the enormously dilated veins. In some of the latter, the red blood-corpuscles were still to be recognized as inclosed in a delicate reticulum of fibrine. Around the arteries, agmina of scattered red blood-corpuscles could be seen, in the investing connective tissue, which had escaped from the vessels by diapedesis. Most of the seminal tubules showed complete absence of their epithelial lining, many containing merely granular matter and detritus. The interstitial tissue between the seminal tubules was traversed by scanty trabeculæ of tumid connective tissue, and was remarkably distended, exclusively by the products of inflammation. the elements of which were composed of large, globular, granulated, and multinuclear cells, without appreciable intercellular substance.

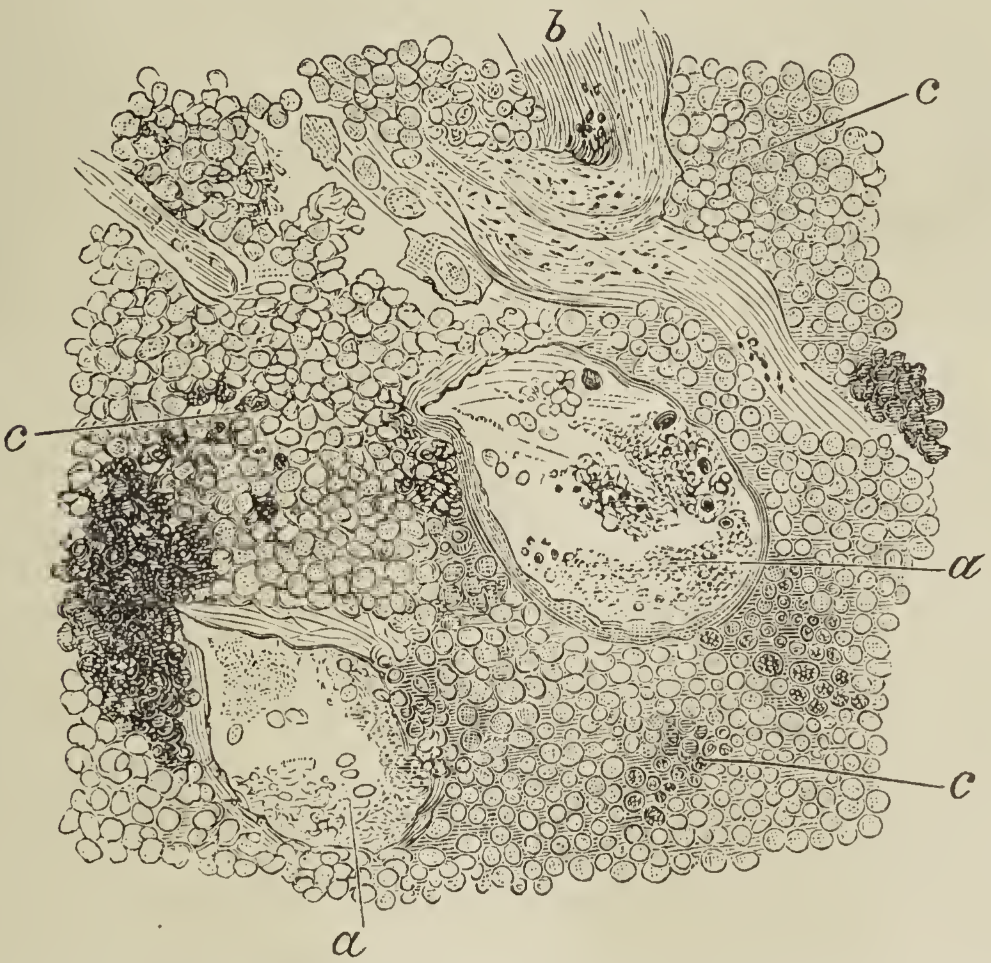

Fig. 3.—*a*, Seminal canaliculi containing detritus and granular matter: *b*, connective tissue in granular disintegration :*c*, interstitial substance, consisting of densely packed lymph-cells (inflammatory neoplasm of Billroth). (Hartnack. 250 diam.)

The epididymis had undergone analogous changes. The connective-tissue framework was found in various stages of disintegration; sections of the vas deferens could hardly be recognized as such. The connective-tissue elements showed a better state of preservation in the larger blood-vessels. These, as also the capillaries investing the tunica albuginea, were very much dilated, the former still containing remnants of blood-corpuscles, the latter being invariably empty. The interstitial substance, likewise consisting of inflammatory products, was very much increased in amount, widely separating the imbedded structures. The central portions

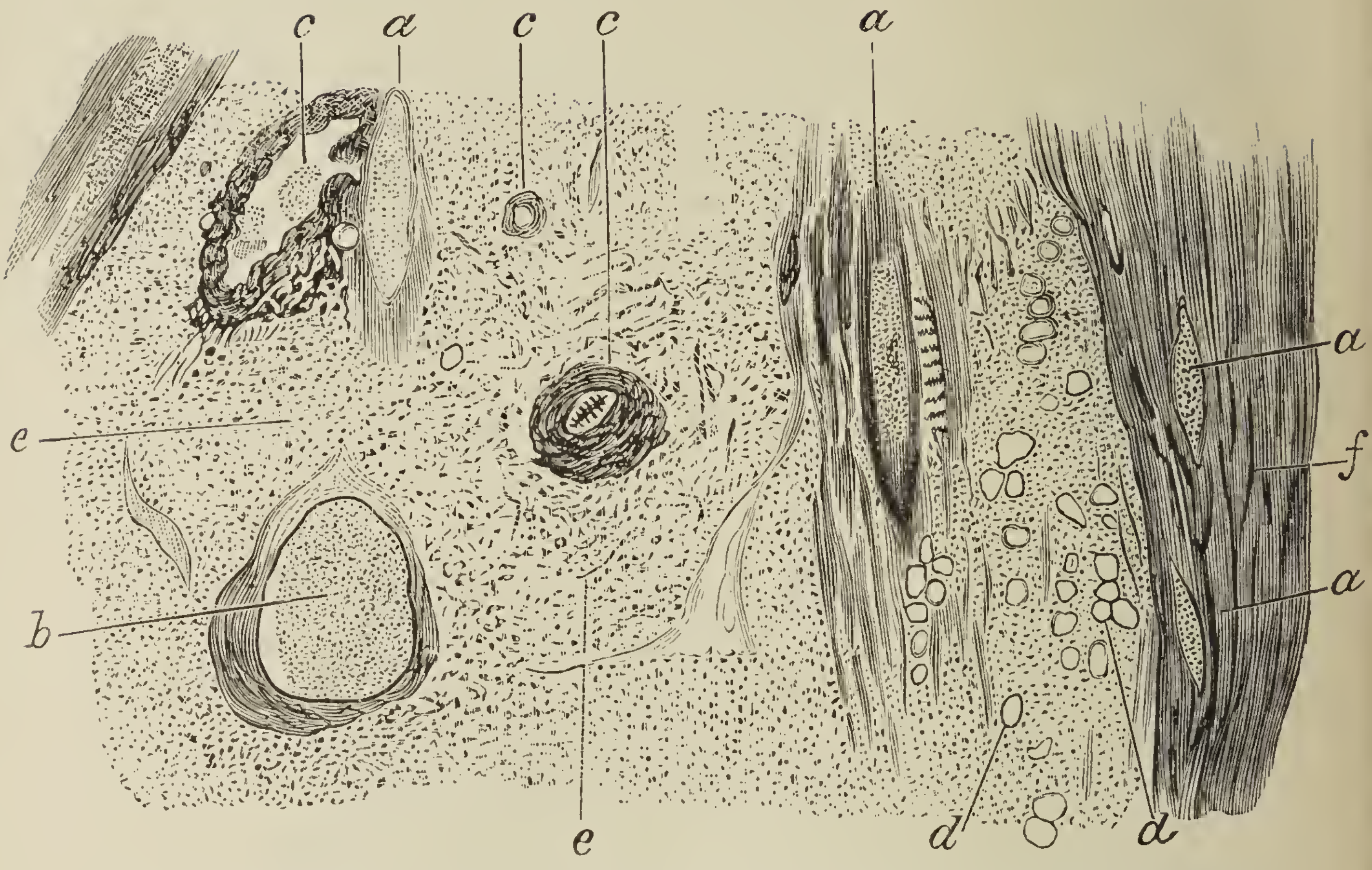

FIG. 4.—EPIDIDYMIS.—*a*, veins choked with blood ; *b*, seminal tube filled with granular matter; *c*. arteries; *d*, distended capillaries near tunica albuginea; *e*, enormously broadened interstitial substance, consisting of sparse bundles of connective tissue and densely packed masses of lymph-cells ; *f*, tunica albuginea.

of the testis consisted of a mass of detritus and fatty granules, traversed here and there by the remnants of the septa.

A study of the clinical features of this case would seem to justify the assumption of thrombosis of the greater number of efferent veins, originating in the inflammatory process (orchitis and epididymitis), a manifestation of which condition is recognized in the unusually rapid and frequent recurrence of the hydrocele. The tension produced by the accumulation of inflammatory products, further increased by the supervention of hydrocele, gradually resulted in occlusion of the internal spermatic artery and of the artery of the vas deferens, causing diffuse infarction with consecutive necrosis. The septic decomposition of tissue and the development of gas may have been due to the employment of an insufficiently disinfected trocar.

In the cases reported by Volkmann, detachment of the necrosed tissues was permitted to take place spontaneously—a process involving a considerable length of time. As demonstrated in the present instance, complete removal of the diseased parts very materially hastens recovery.

42 STUYVESANT STREET, *April* 27, 1880.

CASES OF INJURY AND DISEASE OF THE LARGER JOINTS.

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The following cases are reported because they are believed to illustrate some practical points in the surgical treatment of such cases, as well as in the treatment of complications which are liable to occur in their progress. All were serious cases. Two required amputation of the limb; one, free incisions into the knee-joint, and a seton through it for drainage purposes; and another required excision of the upper extremity of the humerus. All terminated in recovery.

Case I.—*Compound dislocation, with fracture at the ankle-joint; amputation; osteomyelitis; septicæmia; broncho-pneumonia; recovery.*—R. M., male, aged fifty-four years. On the morning of May 27th, while riding on a lumber wagon, the axle-pin broke, and he was thrown forward to the ground, striking heavily upon his left foot. Soon after I saw him, and found the foot dislocated outward, the lower end of the tibia broken and protruding through the integument at the inner side of the foot, more than two inches. The fibula was broken three inches above the joint, and the astragalus was dislocated inward. The soft parts were extensively lacerated. I amputated the leg through the middle third by circular flaps, the patient having been anæsthetized with ether. The parts were very vascular, and nine ligatures were required. After dressing the stump, it was kept wet with a solution of carbolic acid in water (ʒij to Oj), and half a grain of morphia was given. Seven o'clock P. M.—Reaction slow; he exhibits great depression and nervous agitation. Pulse 70; bloody serum oozes from the stump; five grains of sulphate of quinia, with ten of Dover's powder, to be given at once. *28th.*—Has some fever. Pulse 80; tongue dry and a little red; is very restless. Ordered morphiæ sulph. gr. ¼ every six hours; milk-punch. *29th.*—Pulse 84; tongue red, but moist; anorexia. There is a dark-colored, dirty-looking discharge from the stump, which is somewhat painful, but not swollen (commencing osteomyelitis). Renewed the dressing. Ordered quiniæ sulph. gr. ij, morphiæ sulph. gr. ¼, acid. sulph. aromat. gtt. x in water, every four hours; milk-punch, beef-tea, etc. Continued the carbolic-acid dressing. *30th.*—Fever; pulse 100; tongue brown, but moist. The discharge from the stump continues. P. M.—Pulse 104; slight muttering delirium. He has had a mild rigor, and is now sweating some. (Septicæmia.) *31st.*—Fever; mild delirium; vigilance all night; slept some early in the morning; tongue red and dry; bowels constipated. Ordered ol. ricini, f ℥ j; other treatment continued. P. M.—Bowels have moved freely. Pulse 100; sweating. *June 1st.*—Appears better this morning. Pulse 90. There is some swelling of the stump, and the dirty discharge continues. At 1 o'clock P. M. he had a violent rigor, followed by fever and profuse sweating. Pulse 110; muttering delirium. His respiration is much embarrassed, and coarse râles are heard through both lungs. (Broncho-pneumonia.) Ordered tinct. ferri chlor. gtt. x, potass. chlorat. gr. v, every four hours. Quinine and alcoholic stimulants to be continued. *June 2d.*—He has taken a pint of whisky during the past twenty-four hours. His respiration is easier, and he coughs much less. Pulse 88; skin moist; mind confused; tongue red, moist, and flabby; discharge from stump less. P. M.—Pulse 96 and feeble; some fever; very restless. *3d.*—Pulse 98 and feeble; eyes staring and rolled up; is very weak; fever high; delirious; tongue red and dry; treatment continued. P. M.—Has less fever; pulse 92; delirium less; answers rationally when spoken to; breathes easily, and says he feels better. *4th.*—Has slept well part of the night, but is very restless this morning. Has less fever. Pulse 94; mind more clear. The discharge from the stump is less, and it looks better. The bronchial râles are disappearing. *5th.*—Is much better this morning. Pulse 80 and stronger; whisky reduced to half a pint per diem. *9th.*—Has continued to improve, and is doing well. All the ligatures except one have come away. No exfoliation of bone has occurred. The stump looks well; the discharge from it is slight and of good color. From this time he steadily continued to gain. The stump gradually healed, and he slowly regained his health.

This case is a good illustration of the evolution and course of a mild form of osteomyelitis, which was followed by septicæmia and broncho-pneumonia. No necrosis or exfoliation of bone occurred. During my military service I had frequent opportunity to study osteomyelitis as it occurred after direct violence to bone from gunshot wounds and after amputations. This mild form occasionally occurred, and generally terminated in recovery. The more common form was that of diffuse suppuration commencing in the medulla of the bone, and was frequently followed by pyæmia and its dangerous sequelæ, viz.: thrombosis in the veins, embolic pneumonia, the formation of metastatic abscesses in the lungs, liver, spleen, kidneys, and other viscera, and terminating in death. Necrosis and exfoliation of the end of the stump-bone was of frequent occurrence, and often gave rise to a mild form of septicæmia, with typhoid symptoms; but, unless pyæmia developed, the patient usually recovered.

Case II.—*Caries of the ankle-joint; amputation of the leg; recovery.* During the summer of 1875 I was asked to see E. B., aged sixteen years, an unhealthy-looking boy of deficient physique. His history was as follows: In January, 1868, while skating on a pond on Staten Island, the ice broke and he fell into the cold water, and got thoroughly wet. What was said to be a severe cold followed. After a few days, both legs became swollen, and an abscess formed near each ankle. These were opened by a physician, and matter was discharged from both of them. They did not heal, and the lower end of each tibia became carious. In January, 1869, the late Dr. Gurdon Buck saw him, and removed the carious bone from both tibiæ. The wound upon the right leg did not entirely heal, but continued to discharge until July, 1874, when Dr. Buck performed a second operation upon it with no better result. In the mean time the patient had removed to Nyack, and came under my observation. The disease continued to extend, and in June, 1875, it involved the entire ankle-joint, from which, through an opening which had formed on its outer side, came a profuse discharge of unhealthy-looking pus. August 17, 1875, I examined him under ether. The lower three inches of both tibia and fibula and the astragalus were found to be extensively diseased beyond the hope of repair. I therefore, with the assistance of Dr. C. R. Robert, amputated the leg through the middle, by the circular-flap method, after applying an Esmarch bandage to the limb. The operation was bloodless until the bandage was removed; then some oozing of blood from the cut surface occurred, which was readily controlled by the application of cold water. The stump, after being dressed, was kept constantly wet with a solution of carbolic acid in water, as in Case I. Very little constitutional disturbance followed, and he did well until August 21st. During last night frequent spasmodic twitching of the muscles of the stump occurred, together with some bleeding from it. The dressings were removed, and the stump was thoroughly washed with the carbolic solution, and dressed again; no further trouble followed. He had been taking quinine, muriated tincture of iron, and milk-punch in moderate quantity. The last ligature came away August 25th, and the stump soon after healed.

March, *1880.*—He has been wearing an artificial leg for the past two years. There has been no return of the disease, though his general health has been far from good, and he has had several hæmorrhages from the lungs. He will in all probability ultimately die of phthisis pulmonalis.

The constitutional dyscrasia which kept up the local disease in this case was very persistent, and could not be overcome. Nearly seven years had passed since the commencement of the disease when it came into my hands; constitutional treatment had been kept up, and two operations had been performed by a distinguished surgeon, yet the disease continued to extend until, finally, the whole ankle-joint was involved, and amputation became a necessity. Fortunately for him, there was no return of the disease in the left leg after the first operation.

Case III.—*Suppurative inflammation of the knee-joint following an incised wound; treated by free incision and drainage by the seton; recovery.*—In January, 1877, I was asked by Dr. A. O. Bogert to see E., a boy aged about seven years, who in December, 1876, had fallen upon a "brush-hook," which cut into the right knee-joint, on the outer side, just below the lower margin of the patella. Synovia escaped freely from the wound. It was dressed by Dr. Bogert. Severe inflammation of the joint followed, the whole limb became enormously swollen, and a large abscess formed among the muscles of the thigh. About the middle of January, 1877, the original wound opened, and a large quantity of pus was discharged. January 23d, I saw him. At that time the wound had closed. The abscess in the thigh had again filled up; the whole limb was much swollen, and pus had burrowed extensively among the muscles of the thigh. He was suffering severely from hectic fever, followed by profuse sweats, and had become very much emaciated; his tongue was red, dry, and glazed; pulse frequent and feeble; anorexia, etc. His condition was extremely critical.

After due consideration, it was determined that amputation at that time was not advisable, as it would have to be done high up in the upper third of the thigh, and it was very doubtful whether he would survive the operation. We therefore determined to open the joint freely, establish free drainage, and trust to the reparative power of youth to carry him through. After anæsthesia by sulphuric ether, I made a free incision into the joint on each side, one half inch beyond the lateral border of the patella. Introducing my finger into the joint, I discovered a large opening through the upper and inner synovial pouch, which communicated freely with the abscess in the thigh (showing that the abscess was not peri-articular, as they are commonly stated to be). By gentle manipulation of the thigh, over one quart of pus was evacuated through the incisions. After thoroughly cleansing the interior of the joint, I passed a skein of white worsted yarn through it to keep the incisions open, and to serve for drainage purposes. An attempt was made to keep the limb extended by means of a long sole-leather splint applied to the back of it. This proved to be impracticable by reason of the pain it caused in the extremely sensitive limb. There was much œdema and swelling of the leg from the knee down, and extension could not be made by the weight and pulley, as the adhesive straps would not hold. All further attempts to keep the limb straight were therefore abandoned. For constitutional treatment, iron, quinine, and alcoholic stimulants were given freely, also a sufficient quantity of morphia to allay pain and nervous irritability, and a water-dressing was applied locally. Under this treatment he gradually improved, the inflammation subsided, he regained his appetite and strength, the discharge from the joint ceased, and, after five weeks, the seton was removed, and the incisions healed with the leg in a semiflexed condition. Bony anchylosis did not occur. After he got about on crutches, the limb gradually straightened out so that the toes touched the ground. He is now a strong, vigorous boy, with a crooked but useful limb.

This case is a practical illustration of the great value of free drainage in the treatment of suppurative inflammations of the larger joints. As no special antiseptic precautions were taken other than the free use of water for purposes of cleanliness, I think his recovery must be mainly attributed to it. Had an ice-dressing been applied in the beginning of the treatment, before the inflammation gained such headway, I think a much better result might have been obtained, as in the following:

CASE IV.—*Incised wound of the knee-joint treated with ice-dressing; recovery without the occurrence of inflammation.*—During the summer of 1874, M——, a middle-aged man, a carpenter by trade, while working at the bench, let fall a heavy chisel, the sharp edge of which struck his left knee on the inner side of the patella, and made an opening into the joint over an inch long, from which synovia escaped freely. I saw him soon after, and closed the wound with superficial sutures, adhesive straps, and a bandage. He was then sent home, placed in bed, a splint applied to the posterior part of the limb, and an ice-bag was kept constantly on the knee. No inflammation or constitutional disturbance followed. After one week the dressings were removed, when it was found that the wound had thoroughly healed. No further trouble followed, and he was soon able to attend to his usual work.

CASE V.—*Gunshot wound of the shoulder-joint; excision of the fragments of the upper end of the humerus; recovery.*—B. L., a boy, aged twelve years; January 8, 1880, he received a charge of bird-shot into the left shoulder, at short range, by the accidental discharge of a shot-gun in the hands of his brother. The charge entered the front of the shoulder, passed upward and outward, splintered the head of the humerus, divided the long tendon of the biceps muscle, and carried away a large part of the deltoid, leaving a large, ragged wound nearly three inches in diameter. The shot did not scatter much, but appeared to have impinged directly against the anatomical neck of the bone, splintering it nto many fragments. Two hours after he received the wound, I saw him, gave him ether, and extracted all the fragments of the bone, except the greater tubercle, which, being firmly adherent, was left *in situ* as a point of support for the rotator muscles of the arm, during the healing of the wound. The upper sharp end of the humerus was then rounded off with a bone forceps; the ragged edges of the wound were smoothed off with scissors, and the whole wound was thoroughly washed out with a one-to-twenty solution of carbolic acid. As the edges of the wound could not be approximated without great tension upon them, it was left open to heal by granulation. The arm was fastened to the side with adhesive plaster, applied in a similar manner to Sayre's dressing for fractured clavicle. He suffered considerably from shock and was very restless. Ordered tinct. opii camph., in teaspoonful doses, p. r. n. *January 9th*, A. M.—Pulse 100; temperature 99·8° F.; respirations 24. Was very restless during the early part of the night, but slept soundly toward morning. Reaction good. The wound to be sprayed with a one-to-forty solution of carbolic acid every six hours, and kept covered with a cloth wet with the same solution. *10th*, A. M.—Pulse 102; temp. 100°; rested well; ordered quiniæ sulph. gr. ij every six hours, in solution. *11th*, A. M.—Pulse 98; temp. 99·6°; doing well. *12th*, A. M.—Pulse 88; temp. 99°; bowels have moved. *13th*, A. M.—Pulse 80; temp. 99°; takes nourishment freely, and with a relish. From this time he improved rapidly. The blackened surface of the wound gradually cleaned off, and it was soon covered with healthy granulations. There has been and there is now but little discharge from the wound. I have noticed in many cases of wounds that the carbolic acid, aside from its antiseptic properties, seems to limit the amount of inflammation and the consequent suppuration. *28th.*—The wound has filled with healthy granulations, and has commenced to cicatrize around the edges. To be dressed with ung. resinæ, carbolized. *March 5th.*—The wound has healed, and there is motion at the joint.

He can move the arm backward and forward, and can raise his hand to his mouth. He will undoubtedly have a very useful arm. The fragments of the bone extracted were deposited in the Army Medical Museum at Washington. The specimen number is 7,000, Surgical Section.

CASE VI.—*Dislocation of the right femur upon the pubic bone; reduction by manipulation.*—P. H., aged sixty-three. While riding on a lumber wagon, November 13, 1877, he was thrown forward with great force to the ground, striking, he says, upon his right hip. I saw him one hour after, and found the head of the right femur dislocated upon the pubic bone. Being some five miles from my residence, and not having an anæsthetic with me, I attempted reduction without it, and failed. After some delay I obtained some chloroform, which I gave him, and then, with the assistance of Dr. C. H. Masten, proceeded to reduce the dislocation by what is known as Bigelow's method, viz.: "First semi-flex the thigh to relax the Y-ligament—at the same time drawing the head of the bone down from the pubes; then semi-abduct and rotate inward, to disengage the bone; lastly, while rotating inward, and still drawing on the thigh, carry the knee inward and downward to its place beside its fellow." These manœuvres were assisted by placing a broad bandage around the upper end of the flexed thigh, upon which traction was made by an assistant, outward and downward, while the thigh was being rotated inward. The head of the bone was disengaged with difficulty from its abnormal position, but when this was accomplished there was no further difficulty. After remaining in bed for three weeks, he was allowed to get out on crutches, and he soon after regained the complete use of his limb.

This form of dislocation of the femur is of very rare occurrence, and is much more difficult to reduce than any of the three other forms commonly described. According to Sir Astley Cooper, it occurs about once in twenty dislocations. In 104 cases collated by Hamilton, it occurred eight times, a slightly greater percentage than Cooper's.

I have reserved a number of cases of fracture implicating joints for a future article.

ON DIVISION OF THE SPHINCTER ANI MUSCLE AS A THERAPEUTIC MEASURE.

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Within a short time I have been called upon to treat two cases of rectal disease, which have strongly impressed upon my own mind a point in the surgery of this part to which it may be worth while to call attention.

The first case was that of a woman of rather nervous temperament, suffering with hæmorrhoids, which I removed by Allingham's operation. As they protruded freely from the anus, there seemed no occasion for stretching the sphincter muscle, and this, therefore, was not done. Hardly had she recovered from the ether, however, before I regretted the omission. For a week this muscle, by its spasmodic twitching, deprived the sufferer of all rest and comfort, often waking her with a cry from a sound sleep, and making the constant administration of morphine a necessity. The pain was so severe that the advisability of again etherizing her and paralyzing the muscle, as should have been done in the first place, was seriously considered.

The second case was one of fistula, in a man in feeble health and also of nervous temperament. The abscess cavity was of the size of the palm, and communicated with the bowel just inside the verge of the anus. Again there was no necessity for stretching the sphincter, but this time it was thoroughly done with the thumbs in the usual way.

From the time he recovered from the ether he suffered no pain, the bowels moved naturally on the day after the operation, and in a week he left for the country, congratulating himself on having escaped all the suffering he had so much dreaded.

It may be that in the latter case the absence of pain was only a coincidence, but the former proves to my mind the amount of suffering which the sphincter alone may cause—fully as much as is seen in many cases of incurable disease of this part. If, instead of hæmorrhoids, the patient had been suffering from a malignant growth, this symptom alone would have been considered by many a sufficient indication for lumbar colotomy.

The slight sensibility of the rectum above the anus is well known, being a matter of every-day experience. The gravest disease may exist here, and nitric acid or the cautery may be applied, without causing any great degree of pain, while the extreme sensibility of the anus and the tendency of its muscle to spasmodic action in disease are easily understood by a glance at its very free nerve supply from the sacral and pudic nerves; and this clinical fact has given rise to the practice of temporarily paralyzing it by stretching or dividing it with the knife or écraseur, sometimes as a palliative and sometimes as a curative measure. Before we can properly define the limits of such an operation, and reduce it to its true rank as a legitimate surgical procedure, we must know exactly how far the function of the muscle may be interfered with without inflicting a greater evil than the one its division is intended to cure. In this respect it seems to bear a close analogy to the meatus urinarius, and the more we examine the subject the more surprised we are to find how easily it may, in great part or entirely, be dispensed with.

The forcible and sudden stretching of the muscle with the thumbs produces, as is well known, only a temporary loss of power, lasting a few days and causing so little inconvenience as sometimes to scarcely attract the attention of the patient. It is essentially a rough proceeding, and is generally attended by a rupture of the mucous membrane, which may be avoided by a more gradual and intermittent dilatation with a suitable speculum, such as Bodenhamer's, in which the power may be regulated by a screw. The complete linear division of the muscle with the knife or écraseur causes greater or less incontinence, sometimes hardly noticeable, and again lasting several weeks, and probably also permanently modifies its action. Before division, it is a circle, and contracts toward its own center; when divided, it is an arc contracting away from the point of division. It is well known that the cicatrix in muscle is almost entirely connective tissue, and this may account for the permanent relief which follows its division in some cases of grave disease, though no improvement may have occurred in the disease itself. The complete removal of the muscle does not of necessity, in fact we might say generally, cause permanent incontinence. Curling says, "To credit this, we must suppose that the sphincter is an unnecessary muscle." In a state of health it certainly is not, but Nature has great power in adapting herself so as to atone for the removal even of a necessary part. Curling himself gives two cases of cancer which "show that a large part of the muscle may be removed without seriously weakening the retentive power of the anus, or contracting the orifice so as to produce any important impediment to the passage of stools." Others have proved that not only a large part but the whole may be removed without causing permanent disability. For example, Emmet* describes an operation for cancer in which he removed "the entire sphincter muscle, about three inches of the posterior wall of the rectum, and about an inch and a half of the rectal surface of the recto-vaginal septum," and yet, in less than two months, the patient had "good retentive power." The most recent authority on this point, however, is Cripps.* He says, in speaking of the condition of the parts after excision:

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* "The Principles and Practice of Gynæcology," 2d ed. Philadelphia: Henry C. Lea, 1880, p. 516.

> It might be supposed that the destruction of the internal sphincter, and at the same time more or less damage to the external muscle, would be followed by an incontinence of fæces. In my Jacksonian Essay, out of thirty-six cases recorded, defæcation was normal in twenty-three instances, while fæces could be retained, when not too fluid, in six cases, incontinence resulting in seven instances only. My own experience is quite in accordance with these facts, and in one case only was incontinence a trouble, and this was complicated with stricture. In all cases, after operation there is at first complete incontinence; and the patient loses all consciousness of the passage of fæces, but as convalescence advances control returns. In those instances where portions of the sphincter have been left intact, the muscle, temporarily paralyzed, probably regains its power, but when the sphincter has been wholly removed retention of fæces requires another explanation. Chassaignac attributed it to an hypertrophy of the circular fibers around the termination of the cut margin, constituting a sort of rudimentary sphincter. Lisfranc considered that it depended most probably on the somewhat narrow, tortuous course through the cicatrix, assisted by the surrounding muscles. In the "Bulletin de la Soc. de Chirurgie," of 1861, an interesting discussion on this subject will be found. In the majority of cases it does not appear that hypertrophy of the circular fibers has anything to do with the power of retention, nor in cases that I have examined has any such hypertrophy been found. The common plan by which the passage of fæces appears to be prevented will be best gathered from a description of Mrs. McM——'s case, whose rectum I have frequently examined since the removal of two inches and three quarters of the bowel, twenty months ago. Mrs. McM—— is able to retain both wind and motions, as a rule, completely, but, if she has any diarrhœa, the linen is slightly stained. Upon separating the sides of the buttocks, the anal aperture appears as an oval opening in the skin, one inch long by three quarters wide. The margin of the opening is formed by a slight inversion of the skin. The edge is not hard, and admits of a certain amount of stretching; just within the orifice of the skin is seen a bright-red protrusion, which, upon examination, is found to be a sort of prolapse of one side of the bowel, completely blocking up the opening. Very slight pressure enables the finger to pass into the bowel. This valve-like approximation of the sides of the bowel would appear to

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* "Cancer of the Rectum; its Pathology, Diagnosis, and Treatment." London: J. & A. Churchill, 1880, p. 162.

be but a feeble guard against the passage of fæces; nevertheless, in practice, it is completely efficacious.

Knowing, then, the results of stretching, of division, and of complete destruction of the sphincter muscle, it may be possible for us to mark out with some degree of accuracy the conditions which indicate that one or other of these procedures is likely to be followed by good results.

It is with the second, or complete division, that we have now most to do. The good results of this operation for the cure of painful ulcer are too well known for us to dwell upon them—the relief of pain probably resulting from direct section of nerve filaments going to the ulcerated surface, and the cure, from the rest given the part by the paralysis of the muscular fibers. The division of the muscle may greatly assist in the removal of a foreign body from the rectum, which from its shape slips from the blades of an instrument, or from its size can not be drawn through the anus without laceration, e. g., a chocolate-cup, as in a case quoted in the "London Medical Record," February, 1879, p. 54.

In the March number of this "JOURNAL" for the present year we gave a collection of cases of external rectotomy for the cure or relief of grave strictures of the rectum, and called attention briefly to the part which division of the sphincter played in the good results of this operation, independently of any interference with the stricture itself. This point we wish to emphasize now more strongly. In that paper we quoted three cases which proved that in non-malignant stricture, attended with much pain and ulceration, and in cases of cancer where the disease was too extensive for extirpation, and the patient was worn out by the constant suffering, such relief might be obtained by a division of the sphincter alone as to deceive the sufferer into the belief that his disease had been radically cured, this relief from pain lasting till the death of the patient from the gradual advancement of the cachexia.

The symptoms caused by stricture of the rectum, whether malignant or not, can be grouped under two general heads: first, those due to obstruction; and, second, those which result from the pain, the latter being by far the most troublesome and most frequently calling for surgical interference. For the obstruction we have several remedies: the destruction of a part of the diseased tissue with escharotics, gradual and mild dilatation with the finger as a means of palliation, and the proper regulation of the diet and administration of laxatives. By such measures an exceedingly small outlet may be made to suffice for the necessities of nature. If even this can not be preserved, and actual obstruction is threatened, there are two remaining measures which may be resorted to. The first is free division of the stricture with the écraseur, applicable to all cases in which the disease is situated below the reflexion of the peritonæum, say, within four inches of the anus; and the second is lumbar colotomy, applicable to all cases in which it is above this point.

For the relief of the other class of symptoms (those due to pain) lumbar colotomy is not indicated—at least, not until other means have been tried. For the pain may be due to extension of the disease to the neighboring parts, the involvement of the bones of the sacrum, pressure on adjacent nerves, etc., in which case the patient is no better off after lumbar colotomy than before; and, again, it may be due, and often is, to constant irritation of the sphincter, either from direct extension of ulceration, or from the constant contact with a sanious offensive discharge; in which case it may be relieved as effectually by a free division of the muscle as by the formidable operation of colotomy. If, after paralyzing the sphincter, there is still pain enough to make a formidable operation necessary, and this pain can be reasonably proved to be due to the passage of fæces over an ulcerated surface, and can not be relieved by any of the many means we have at our command for softening fæcal evacuations or allaying the irritability of the rectum, we may resort to colotomy as a justifiable procedure; but, limited by these restrictions, the operation would be much rarer than it now is.

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REMARKS ON VAGINAL TAMPONS; WITH A DESCRIPTION OF A CONVENIENT METHOD OF TAMPONING THE VAGINA.

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Beyond the ordinary use of the vaginal tampon as a hæmostatic, for which purpose it is perhaps too often employed, it is but little resorted to by most practitioners, so far as I am able to learn. Yet I am convinced that it is capable of rendering very great service in gynæcological practice. While not attempting to treat of the subject exhaustively within the narrow limits of this paper, it may be well to allude briefly to some of the leading purposes that this measure may be made to serve.

The tampon may act mechanically, or as a convenient means of applying medicaments within the vagina, or in both ways at the same time. It is often desirable to immobilize the uterus to a certain extent. Nature herself does this in many instances—so frequently, indeed, that it is quite exceptional to meet with a case of extra-visceral pelvic inflammation in which the natural mobility of the organ is not either wholly lost or manifestly diminished, or in which, at least, motion of the organ is not productive of pain. This pain is due to sudden compression or stretching of inflammatory deposits in the neighborhood of the uterus. It may readily be elicited, for diagnostic purposes, by moving the cervix in one direction or another, according to the locality of the deposit; it is also very frequently occasioned by any jarring communicated to the uterus in the ordinary movements of the body, as in walking. It is more apt to be complained of in cases in which the exudation is quite limited in extent or slight in amount—often not sufficient to betray itself by other signs. It quite commonly occurs as a new feature in the cases of patients who are progressing toward recovery—a fact that we may very readily understand when we reflect that an amount of exudation sufficient to render the uterus immovable necessarily guards, for the time being, against the effects which sudden movements of that organ might otherwise exert upon the over-sensitive parts surrounding it; but that, as the exudation becomes less bulky, as the result of advancing absorption, and as the uterus consequently regains its mobility to a considerable extent before the adjoining tissues have resumed their natural condition, movements of the body which before produced no independent movements of the uterus, and consequently gave rise to no pain, now do both.

Under such circumstances it is on many accounts desirable to supplement by artificial means the splint-like action of the previous bulky exudation, or to wholly supply it in those cases (the more numerous, I think) in which the inflammatory process has never given rise to any palpable amount of exudation. Not only is pain thus prevented, but it is quite possible that, by restraining the movements of the uterus, and consequently doing away with their teasing and irritating effects upon the crippled tissues, we may materially hasten the complete absorption of the inflammatory exudation and the definitive return of the parts to their normal suppleness and insensitiveness. Until this result has taken place the patient is constantly liable to a fresh outbreak of inflammation, which may be more or less acute in character, and therefore amounting to an illness; to additional deposit; to the occurrence of suppuration in a mass that might otherwise have been absorbed; to hæmorrhagic effusion, and other grave accidents. It is a good rule, then, to immobilize the uterus whenever its movements are productive of pain. For this purpose pessaries are sometimes used, even where there is no question of any abnormality of situation or attitude on the part of the uterus, and no doubt with good effect. Pessaries, however, are objectionable, as a rule, whenever they can be dispensed with; and in such cases as those to which I refer the objections which apply to them in general are doubly urgent, since it is commonly difficult, if not impossible, to apply any of the ordinary pessaries in such manner that it shall not of itself press injuriously upon the parts affected.

A well-arranged tampon, however, is equally efficient as a restraint upon the movements of the uterus, while at the same time its pressure is so diffused and so equable that not only is it not injurious, but very likely aids materially in promoting absorption of the exudation. Moreover, the tampon has this great advantage over the pessary, that, in addition to its mechanical action, it affords a convenient means of applying medicinal agents — sorbefacients, depletives, anodynes, etc. In this comparison I refer, it scarcely need be said, to systematic tamponing (although not to the cramming that belongs to the hæmostatic tampon), and not to the wads of cotton or other material which, when imbued with some drug, have been called "medicated pessaries."

As for the use of tampons for the purpose of correcting the errors of attitude of the uterus, commonly, but erroneously, termed displacements, there can be no doubt, I think, that, after reduction, the cervix can be kept in its proper situation for the time being by packing the vagina around it; and, that accomplished, the natural attitude of the organ as a whole is maintained. In many instances this temporizing sort of treatment is judicious as a tentative measure, for it is always a matter of uncertainty at first how a pessary will be borne. Tampons are frequently useful as palliatives in cases of redundancy and prolapse of the vagina, with or without cystocele, proctocele, or descent of the uterus. Not infrequently, indeed, there are reasons for abstaining from more radical treatment.

In affections of the vagina itself, the advantages of a more prolonged application of medicinal agents than is afforded by an injection are getting to be more and more appreciated, and with us the method of application by insufflation seems to be gaining in favor, taking the place of the *sachets* of the French, to which, however, it is inferior in that it is not associated with any distention of the canal, so that the natural folds and recesses of the lining membrane are not spread out and subjected thoroughly to the action of the agents employed. The sachet is open to some objections. Its preparation is a matter of some trouble, and, if it be large enough to distend the canal, both its introduction and its withdrawal are somewhat difficult and often painful. These objections do not apply to tampons of the proper sort.

Not only do drugs thus applied act upon the mucous membrane of the vagina, the cervix uteri, and surrounding parts, but also, I am convinced, upon the endometrium, to which they doubtless gain access to a greater or less extent; so that, if this method be employed, intra-uterine applications may very frequently be dispensed with.

It must be confessed that the usefulness of the tampon for these and other purposes is seriously hampered by any considerable impairment of the integrity of the perinæum. Even under such circumstances, however, the measure may, if it be thought worth while, be so supplemented by the use of a T-bandage as to render it still, to a certain extent, efficient. There are some patients, too, who can not tolerate the prolonged retention of any foreign substance in the vagina. Such instances, however, are decidedly exceptional. In most cases of this sort the vagina can gradually be rendered tolerant by beginning with very small tampons, and by directing them to be retained for a very short time only. Their size and the duration of their retention may be increased from time to time. Nevertheless, there will remain a certain number of cases in which it will be necessary to forego their use.

If, then, the practice of tamponing the vagina possesses these advantages, why is it not more generally made use of? Chiefly, I think, because the inconveniences of the proceeding, as commonly practiced and as described in text-books, are the source of much annoyance both to the physician and to the patient. These inconveniences pertain partly to the materials of which tampons are ordinarily made, and partly to the methods of their application. Unfortunately, Sims's speculum has not yet come into general use, even among those who give special attention to gynæcology. Now, the vagina can be efficiently tamponed through the cylindrical speculum, or through Neugebauer's, but not, in my opinion, with any approach to the ease and rapidity with which it can be done with the aid of Sims's instrument. As to the many varieties of the multivalve speculum, as I never use them, I can not speak from experience, but I believe that, to apply a tampon properly through any one of them, *and then withdraw the instrument*, would not be an easy thing to do. A well-known author,* in referring to the operation of plugging the vagina through a speculum, gravely says (without specifying the form of speculum, but evidently having in mind the multivalve): "As the instrument may have to be left in the vagina from ten to twenty hours, the handles of the instrument will distress the patient."

In regard to the materials generally used, nearly all of them are decidedly objectionable. A handkerchief has been recommended, either alone or as an envelope for wads of some other material. If used alone, it will probably prove either too large or too small for the purpose. The object of using it as an envelope is, to enable the tampon to be removed in one mass—a proceeding that is, almost of necessity, quite painful. The objections to sponge are so well known that they need not be specified. Cotton, applied after Sims's method, makes a very efficient tampon, but its removal, even with the corkscrew-like instrument devised by Dr. Sims, is a laborious and irritating task. Little is gained by attaching a string to each separate wad, for the difficulty is, to tell which of the strings belongs to the first wad, which to the last, and so on. If they are all attached to the same string, as in the "kite-tail tampon," considerable time has to be spent in the preparation, and, if such tampons are kept on hand, great care is needed to keep them from getting hopelessly entangled. Moreover, the wads must be of considerable size, or the work of packing the vagina with them becomes tedious, and, if of such size, their withdrawal is often very painful.

A roller-bandage is considered by many to be an excellent material for plugging the vagina, and it certainly answers the purpose better than those previously mentioned. In some respects, however, a substance that I have used very largely seems to me to be preferable. I refer to lamp-wicking. This material is always to be had, even in the smallest hamlet, and requires no further preparation than to be freed from any extraneous matter that may have clung to it—a work that may easily be done as the tampon is introduced. If it is thought desirable to impregnate it with some disinfectant or other solution, it may readily be done without unwinding the original balls. The wicking absorbs liquids rapidly and in great quantity, and a considerable lump of ointment may quickly be incorporated with a wad of it—a matter of some importance when it is desired to make use of a medicated tampon.

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* Tilt, "Handbook of Uterine Therapeutics," third edition, London, 1868, p. 230.

The rapidity with which the wicking tampon may be introduced depends chiefly upon the caliber of the vulvo-vaginal ring. A single strand of wicking is so slender that it may easily be tucked in through a very small orifice, and in this way the vagina may be slowly but completely packed. Where the ostium vaginæ is capacious, on the other hand, several thicknesses of the wicking may be gathered into wads and inserted one after another. Usually, then, the application of a wicking tampon is a rapid proceeding. As the portions of wicking are inserted one after another into the vagina, the speculum, whether it be held by a nurse or by means of a mechanical contrivance, should be steadied with a finger held between its shank and the perinæum. Thus we avoid forcing the instrument against tender parts. When enough of the wicking has been introduced, it is to be cut off at a point two or three inches distant from the vulva. The mass of the tampon is then to be supported by the finger while the speculum is withdrawn. When the tampon is to be removed, the patient simply makes traction upon the portion of wicking that was left hanging from the vulva, and the mass within the vagina is unwound as the traction proceeds; consequently no large wad has to pass the vaginal orifice, and the extraction of the tampon is painless.

Besides the advantage of its greater absorbent property, I find that wicking is better adapted to the easy and rapid performance of such a proceeding as I have described than any of the other substances mentioned, including the roller-bandage. Moreover, it is sometimes desirable to tampon the cervical canal, or to introduce a medicinal agent into the uterine canal in such manner as to insure its prolonged contact with the endometrium. For such purposes an inch or more of the end of the wicking may be stiffened with gelatine, and then, after having been dipped into the liquid to be applied, be introduced into the canal by means of a pair of dressing forceps. If care is taken not to coat the whole circumference of the wicking with the gelatine, the liquid medicament readily permeates the stiffened wicking, and a considerable quantity of it may thus be introduced within the uterine canal. Enough more wicking is then inserted into the vagina to act as a tampon, and, when this is removed, the portion originally introduced into the uterus comes out with it. I have found it convenient to prepare a number of pieces of wicking, each a foot or more in length, and stiffened at one end. When used, one of these is tied to the free end of the ball of wicking, and thus the vaginal and the intra-uterine portions of the tampon are made continuous.

When the tampon is used simply as a vehicle for medicinal applications, I usually direct that it be removed on the day following that of its insertion, or sooner, if it gives rise to any pain or serious inconvenience. In such cases I generally apply it but twice a week. When, however, a continuous mechanical action is desired, it may be used three times a week —a fresh tampon being introduced at once after the cleansing which should follow the removal of its predecessor. In other than hæmorrhagic cases no unpleasant result follows the retention of the tampon for forty-eight hours continuously.

Lectures.

A LECTURE ON DECAPITATION,

DELIVERED IN THE COURSE ON OPERATIVE MIDWIFERY.

By WILLIAM L. RICHARDSON, M. D.,
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(Reported by J. Foster Bush, M. D.)

Gentlemen: To-day I shall speak of one of the operations which look to the destruction of the child. These operations are called for whenever it is not possible to deliver a living child with any reasonable assurance for the safety of the mother. Of these operations there are three: cranioclasm, in which the head, being perforated, is delivered with the cranioclast; cephalotripsy, where the delivery is effected, after or before perforation, with the cephalotribe; and decapitation.

Concerning the first and second of the above-named procedures we will speak in some future lecture; to-day, the third, decapitation, will be considered. The importance and usefulness of this are not as fully dwelt upon in the various works on obstetrics as they should be. In some, indeed, it is not even alluded to, while in others only a brief mention is made, and the instruments employed are spoken of, but no details whatever are given, and the operation, as such, is not described in detail in any book with which I am familiar; although it has been taught in the operating course in Vienna for many years.

Now, if you have a case in which, for any reason, the child can not be born alive, you are not to take any further thought concerning the fœtus, the mother's life being then the only thing to be considered. What is the best way for you to remove the contents of the uterus without injuring the maternal structures is the question for you to decide. This subdivides into two: Which exposes the mother to the least danger at the time? (that is, which, *per se*, is the safer?) and which is the least likely to give rise to danger during the subsequent convalescence? Operations may, of themselves, at the very time of their performance, prove disastrous, or they may be followed by septicæmia or serious local disturbances, owing to the bruised condition of the maternal parts. Consequently, we must remember that many dangers only begin *after* operation.

To repeat, when we know that the child can not be born alive, we may have the choice of delivering either with the forceps, by version, or by one of the three cutting operations we have mentioned. The use of the forceps is apt, in this class of cases, to involve so much traction and compression as seriously to injure the soft parts of the mother, and it is therefore often contra-indicated. The child's head may be so jammed down that version may not be possible; or, if it is, we incur the risk of rupturing the uterus or the utero-vaginal attachments. When we can not use one or the other of these means of delivery, we must resort to one of the cutting operations. Of these, the easiest and best, in cases where the neck can be reached, is that of which we speak to-day—decapitation. But, before dwelling on this method, I would call attention to the fact that cases in which the neck can be reached are those in which the operations of cranioclasm and cephalotripsy would be found very difficult of execution, and in which the maternal structures would be exposed to serious bruising, and even laceration, by either of those operations. I feel strongly upon this subject, and speak decidedly upon the comparative advantages of decapitation over those of the two other operations in this class of cases.

Various obstetricians have recommended different instruments with which decapitation should be accomplished, such as the chain-écraseur, the curved saw, and the curved scissors; but, when you consider where the neck of the child is, and the difficulty of obtaining sufficient purchase for cutting the spinal column, you will see that there are decided objections to these. Therefore, without dwelling upon their merits or demerits, I will pass directly to the two instruments, the use of which is advised by all the leading men in obstetrics—some using the one, and some the other.

The first is the "knife of Ramsbotham, Sr.," which is a curved piece of steel with the inner side of the curve sharpened, the curve ending in a guarded point. The other is "Braun's decapitating hook," which resembles the ordinary blunt hook, with this distinction: in place of a circular curve, it has an angular one, which ends in a blunt point. I will speak of the use of the latter instrument first.

The patient, having been etherized, and the bladder and rectum having been emptied, should be placed on her back, with the hips well elevated over the edge of the bed. Now pass your hand up the vagina till you feel the neck of the child; slip your finger along till you can grasp the lower arm, and, pulling it down, have an assistant hold it firmly (which can best be done by grasping it with a towel), as this puts the neck on the stretch. Occasionally it may not be possible to draw down an arm. Introduce now the index finger of the right hand, if the head is to the mother's left, or *vice versa*, and get the fingers around the neck. Now take the hook in the other hand, and pass it round the neck so that the bulb end comes up well under the arch of the pubes; make sure that it is firmly round the neck; withdraw the hand, and with it ascertain that the point is not impinging on the bladder, but is well down; now grasp the handle with the right hand, keep the index finger of the left on the end of the hook, and turn the handle *away* from the head, *toward* the spine, exerting at the same time downward traction. This draws the head well down. Now twist the neck until the hook has torn through everything, and decapitation has taken place.

Ramsbotham reverses this method; puts his knife with the point downward, so that the bladder may not be injured, and cuts the head off by a see-saw motion of the knife. One of the difficulties of the hook is, that, though it is a very easy thing to snap the neck of the child, the first twist often doing so, it is no easy matter to tear through the soft parts, the mother's tissues often being jammed and bruised to such an extent that serious trouble may arise; and results show that the mortality after this operation is by no means small, to say nothing of the difficulty experienced by the operator in tearing the structures of the fœtus.

On the other hand, with the knife of Ramsbotham, the soft parts of the neck are easily severed, but the force necessary to sever the spinal column, unless you are fortunate enough to strike between the vertebræ, is very great. You have all seen how hard it frequently is for a fisherman to cut between the vertebræ of a halibut, even when he can see what he is doing; imagine, then, how much harder it is to strike an intervertebral space in a child situated as ours is supposed to be. One other objection to the knife may be stated. The force required to cut through the spinal column is so great that I have twice seen the knife break, and in such cases the sharp end may be left imbedded in the neck of the child in such a position as to render further manipulation hazardous to the finger of the operator, at any rate, if not to the mother.

To recapitulate: with Professor Braun's hook we break easily the spinal column of the child, but find difficulty in severing the soft parts; with Ramsbotham's knife the reverse is true. The result of this course in operative midwifery has taught me a different and, I think, a better way, though that I leave for others to decide. It is a combination of the two methods. I draw the child well down, and introduce the hook, as previously described, and thus break the spinal column. You can frequently hear it snap, it is broken so easily and quickly. I now introduce Ramsbotham's knife, and cut as he directs; and you will find that you can cut through the soft parts as easily as you can cut through any muscular tissue. This combination of the procedures combines the vir tues, and does away with the faults, of both.

After decapitation, the delivery of the child is easily effected by traction on the arm, or by the blunt hook introduced into the axilla. Remember, however, that the jagged wound may do damage to the soft parts of the mother, if they are not protected. It is, therefore, best to cover the neck, if that is the presenting part, with the hand, and then no risk will be run. You then have the head left. This may prove difficult to remove, but it can generally be done easily by having an assistant make external pressure over the pubes and hold the head firmly in position. It may then be delivered with the forceps. But it is as important that the jagged wound of the head should be kept away from the tissues in its passage down as it was with the wound of the neck, and the same protection should be furnished here as in the former case. If, however, you feel that the wound is at the most distant part of the head, you know that no damage can be done till it gets low down; and you can act accordingly. Sometimes we can not deliver the head with the forceps. When this is the case, the cranioclast is demanded, though small heads may often be removed with the bone-forceps.

To sum up: the operation of decapitation I advise when the life of the child can not be saved, with due regard to the safety of the mother, and when the forceps can not be used or version be done, and the neck of the child can be reached.

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Editorials.

THE LENGTHENED COURSE AT HARVARD.

We have heard the opinion expressed by a very acute and successful teacher of medicine, that Harvard had made a mistake in establishing the graded course, that clinical teaching was of advantage to the student from the very first, and that the pupil, when once his examination in the elementary branches was passed, was but too prone to ignore those branches thenceforth, to the weakening of his knowledge of medicine as a whole at the time of his final examination for the degree. This criticism is certainly plausible, but time alone can determine its value. In the mean time, we must credit Harvard with a disposition to move in the direction of a higher medical education, and we doubt not that, conservative as she is, she will sturdily retrace her steps if experience should show that such a course is for the interest of the student.

Whatever may be thought of the graded course, and whatever advantage or disadvantage may turn out to attach to it, there can be but one opinion in regard to the latest step taken by the same school. We refer to the lengthening of the course to four years. We learn from an article by Dr. James C. White, the Professor of Dermatology at Harvard, published in "The Harvard Register," that the faculty has been constantly adding to its corps of instructors of late, until they now number more than forty. It was found that this enlargement of the scope of instruction crowded too much teaching into the three years' curriculum—more than the student was able to digest. For this reason in particular, as well as on the general ground that three years was too short a time in which to learn medicine, even on the part of those possessed of the great advantage of the general education necessary to enable them to pass the preliminary examination, the faculty decided to establish a four years' course. This lengthened course, however, is optional with the student. If he takes it, and if he gets an average marking of seventy-five per cent. in all his examinations, the distinctive degree *cum laude* is given him.

Should the custom spring up of incorporating some mark of this distinction in the title of those who have won it (and we certainly trust that such may prove to be the case, for in what other walk of life do codes of ethics and class discipline force men to belittle themselves?), the inducement will doubtless be a strong one for the student to enter upon the four years' course. In our opinion, however, Harvard is strong enough to make it obligatory, and we do not believe that such a course would work any serious hardship to that class of men from which our ranks ought to be recruited. Indeed, we infer that such action is now had in view, and we trust that it will be taken speedily.

THE AMERICAN MEDICAL ASSOCIATION.

We have no means of estimating the number of our professional brethren who, whether as delegates or as visitors, will find their way to New York on the occasion of the approaching meeting of the association. We trust, however, that it will be unusually large. Physicians here share with the other citizens of New York that feeling of hospitality for which the city is well known. This feeling is, to be sure, apt to expend itself in pageantry, and in the massing of men together for the purpose of affording them pleasure in accordance with a formal programme, however little it may be to their taste, rather than in catering to the ascertained preferences of individuals. The ordinary New Yorker too often takes it for granted that sight-seeing is one of the chief objects that his guest had in view in coming to town. Hence, in connection with this meeting, we hear of projected excursions down the Bay and other like provisions for the entertainment of our visitors *en masse*. These things are well enough in their way, and doubtless there are many who will highly enjoy them at the time, and with whom the remembrance of them will serve as a reminder of the pleasant relations formed on the occasion of the meeting. But let not such public junketings altogether overshadow our efforts to seek out for little knots of men, and even for individuals, such more private and quiet entertainment as, with a little tact, we may readily find to be to their liking. This should be the work of individuals rather than of committees, and we are confident that, if the committees do not crowd the public engagements too much, the individuals will not be backward in the work.

It is gratifying to learn that the American Medical Association contemplates the establishment of a section devoted to the diseases of children. It can scarcely be denied that this important part of the general practitioner's every-day work has been rather slighted in our periodical literature, and in the work of our societies. Such is the fate, at times, of even the showy specialties, and then again they rise to a prominence that is not always productive of unmixed good. From the auspices under which the new undertaking is started, we see no reason to fear this latter event, and we therefore look upon the move as in every way a good one.

The "Maryland Medical Journal" for April calls attention to the prospective advantages of Baltimore as a center of medical education. Indeed, that city is in a peculiarly favorable position to gratify the hopes of those who are looking for improvement. It has a medical college, richly endowed, and beyond the necessity of pecuniary support from its students; a lunatic asylum, whose staff need not waste their energies over financial matters, and where patients are sent for cure, and not for board; and a sanitarium in which the question of the mortality of young children in cities may be fairly studied. These advantages it owes to the munificence of three of its citizens, Johns Hopkins, Moses Sheppard, and Thomas Wilson; and the generosity of these men should bear fruit in the reform of medical education, in the treatment of the curable insane, and in decreasing the frightful mortality of young children during the hot term. The medical profession has a right to expect great things from Baltimore.

Reviews and Literary Notes.

The Essentials of Anatomy, designed as a Text-Book for Students, and as a Book of Easy Reference for the Practitioner. By WILLIAM DARLING, M. D., F. R. C. S., etc., and AMBROSE L. RANNEY, A. M., M. D., etc. New York: G. P. Putnam's Sons, 1880. Pp. xvi.–629.

THIS work covers very much the ground that is usually gone over in systematic works on descriptive anatomy. It is very full, and in the main it is accurate. Moreover, many of the facts presented are arranged in peculiar tabular and diagrammatic forms, so that it is far easier of reference than most text-books. We can not concede, however, that these features will prove of material aid to the student in memorizing the dry facts of anatomy. As an anatomical remembrancer, the book is superior to all others in our language. The impressive and thoroughly practical and original oral teaching that has made Dr. Darling famous, together with the well-known ingenuity and industry of Dr. Ranney, had led us to hope that the book would prove to be something more than this—something that would teach the spirit of anatomy, so to speak, and not merely present a dry catalogue of facts, however ingeniously arranged. What we want is a work which shall treat anatomy as a science—one that shall reduce to a minimum the sheer memorizing to be done by the student, by pointing out the connections between facts, by giving a comprehensive view of the design upon which the human body is constructed, and by constantly reminding the reader of the practical applications of this, that, and the other fact in anatomy.

We do not agree with the authors that a mass of facts constitutes the "essentials" of anatomy. In every other branch of science the principles are the essentials, and are first learned, and then the details; in anatomy most men, never get beyond the details, or dream that there is anything beyond. For example, there is a law of definite nerve-supply, which may be briefly stated as follows: The same nerve-trunk which gives a branch to any particular muscle gives another branch to the skin over the insertion of that muscle, and another to the interior of the joint which is moved by that muscle; and yet how many students have ever heard of this almost invariable law, or have used it as an aid to their memory or their dissections? Ask any student the muscles supplied by the facial nerve, and, unless he is fresh from some such book as this, he will probably forget the platysma because it is not on the face, but chiefly on the neck. But explain to him that the facial is the nerve of expression and supplies all the muscles of expression, and show him the action of the platysma; then ask him if that, too, should not receive a branch from the same source—and a new light will break in upon him, and, what is more, he will not be apt to forget it.

There is another law of the definite distribution of arteries, according to which the hyoid bone *must* get a branch from both the lingual and the superior laryngeal, because it is structurally associated with both the parts which these trunks supply—the larynx and the tongue. The ascending palatine is always, to the student, a wandering and unnecessary offshoot from the facial, which he nails down in his memory, by brute force, with the other branches from the internal maxillary and the ascending pharyngeal to the soft palate. He never stops to think that the soft palate is concerned in three different functions—respiration, deglutition, and mastication, and that, if this law of definite distribution hold, it must have a branch from each of the arteries which supply the parts engaged in these functions, viz., the facial to the lips and cheeks, the internal maxillary to the jaws, and the ascending pharyngeal to the pharynx. How many students have ever thought of remembering the branches of the subclavian by the fact that it is the artery of respiration, and, apart from the arm, supplies only the parts directly or indirectly concerned in that process: the vertebral, going to the spinal cord at the origin of the respiratory nerves; the internal mammary, supplying the muscles and cartilages of the ribs; the superior intercostal, distributed to the most important of all the ribs in this function; and the thyroid axis, to the trachea, and the muscles of the neck and back—all accessory to the same process? Facts like these, which are to be found in Hilton's work on "Rest and Pain," seem elementary enough to be classed among the essentials. There are many others. The pancreas may be felt in the healthy subject by pressing in the median line about two inches above the umbilicus, and may be mistaken for an aneurism or a new growth; and the body of the third cervical vertebra projects forward into the pharynx, and may be mistaken for a fracture or dislocation; but we find no mention of these things, though the facts that the duct of the former is sometimes called the canal of Wirsung and that the articular processes of the latter "look B. and U." are carefully stated. We look in vain for Nélaton's line, or the way of finding the other points of surgical interest under the gluteal muscles, for the directions for marking out the normal positions of the viscera, for avoiding the middle meningeal artery with the trephine, for the collateral circulation after ligature of the great arteries, and for the points which guide in the operation of colotomy.

The section on the nerves is almost entirely tabular, and we should recommend a student to confine his reading rather to Dalton's "Physiology" than to such a work as this, if he wishes to gain any real idea of the importance, interest, and beauty of this branch of the subject.

There is a road which, patiently followed, will lead any man to a knowledge of anatomy, but it is not by reading such books as this. It lies through the dissecting-room, with scalpel and forceps, and with books which show him not only what to find, but also the practical utility of the thing when found.

So far as the publishers are concerned, their work is most admirable. The volume closes with a full and satisfactory index.

A System of Medicine. Edited by J. RUSSELL REYNOLDS, M. D., F. R. S., etc. With numerous additions and illustrations by HENRY HARTSHORNE, A. M., M. D., etc. In three volumes. Vol. II. Diseases of the Respiratory and Circulatory Systems. Philadelphia: Henry C. Lea, 1880. Pp. 935.

AMERICAN readers are placed under obligations to both editor and publisher of this edition. The condensing of the work into three volumes, by the device of double-columned pages and smaller type, brings it within the reach of many who have felt that they could not possess the five volumes of the English edition. The value of the work in its present form is much enhanced by the additions of Dr. Hartshorne.

Lectures on the Human Eye in its Normal and Pathological Conditions. By ADOLPH ALT, M. D. New York: G. P. Putnam's Sons, 1880.

THIS work is a translation from the German edition, which was published at Wiesbaden in the latter part of 1879. Though the scope of the book includes the normal histology of the eye, special attention has been given to its pathological histology. The accessory parts of the organ of vision, including the eyelids and eyebrows, the lachrymal apparatus, and the orbit, are not considered in this volume, as the author hopes to treat of them hereafter. Though the subject of the normal and pathological histology of the eye has been exhaustively handled in the encyclopædic work of von Graefe and Saemisch, this is the first work in English that treats of the subject at all in detail, and hence it will probably have a larger audience.

There are ten heads under which the eyeball is considered, viz.: cornea, sclera, conjunctiva, iris, ciliary body, choroid, optic nerve, retina, lens, and vitreous body with the zonule of Zinn. Each of these parts receives consideration: first, as to its normal conditions, and, secondly, under its pathological conditions. The translation is, on the whole, tolerably smooth, but there are numerous awkward expressions resulting from the literal translations from the German words and idioms. Thus the word "plain" is used where "surface" should be employed. The retention of Bowman's term "corneal tubes" is ill-advised. The illustration of the corneal canals and lacunæ, on page 5, is poor. Alt's description of the appearance of the endothelial cells on Descemet's membrane is very good. The proof-reading all through the book has been carelessly done, but this is especially noticeable in the chapters on the cornea and the conjunctiva. There are many typographical errors, and one or two translations of German idioms that are unintelligible to any one not acquainted with German. The term "scar-tissue," though correct, is not so smooth as "cicatricial tissue." On page 29 the words "humory malformation" are unintelligible. On page 38 is a most singular mistake, in which anchyloblepharon is defined as the adhesion of the entire conjunctival surface of the lids to the eyeball, which is the definition of symblepharon; while anchyloblepharon means the adhesion of the edges of the two lids to each other. "Vorticous" and "veinous" are used where "vorticose" and "venous" should be employed.

Alt is right in objecting to the view advanced by Kniess and others, that the obliteration of Fontana's space is the universal cause of glaucoma, for many glaucomatous eyes show no such obliteration. The statement, however, that there is no catarrhal conjunctivitis of the more serious kind which is not accompanied by episcleritis is certainly questionable. Alt is also right in believing that there is no such thing as a genuine tumor of the cornea, in which the growth originated in corneal tissue.

In the chapter on the iris, Alt is inclined to deny the existence of a dilatator pupillæ muscle, though such a muscle has been described by numerous writers of repute. The illustrations throughout the book are all by the author, and, though somewhat coarse and many of them deficient in detail, are sufficiently good for the purpose.

They are especially good in the chapters on the iris and the ciliary body. Alt reports a rare case of rupture of the ciliary body from contusion without rupture of the sclera, the line of fracture beginning at the outer surface and running well into the muscular tissue. The special attention paid to plastic inflammation of the uveal tract is very commendable.

Alt makes the very frank statement that his own examinations of a large number of glaucomatous eyes have not taught him any anatomical fact which might be considered as the common cause of this disease, and this is probably the conclusion that every honest investigator has hitherto reached. The etiology is still in many respects a *terra incognita.*

In considering the normal retina, the author refers to the investigations of Kuehne, Boll, and others upon the so-called retinal purple. These authors have found that during life the outer part of the rods has a purple color, the retinal purple, which is probably secreted from the pigmented epithelial layer.

In speaking of the lens, Alt refers to the difference between the central and the outer parts of the peripheral lens-fibers; the former being soft and semi-liquid, while the latter are tough. This chapter is exceedingly clear and satisfactory.

The last chapter considers what little is really known of the vitreous humor, and is fairly abreast of recent knowledge on the subject, though the normal vitreous is but briefly considered.

The book shows evidences of a great deal of hard work, is sufficiently full for the purpose, and, to any one at all interested in the microscopical pathology of the eye, it will prove a useful aid in the prosecution of studies on the subject. The fact that all the illustrations in the book are made from drawings of the author's own specimens is a proof of the earnestness with which the work was undertaken.

Notes on Diseases of the Testis. By SAMUEL OSBORN, F. R. C. S., etc. London: J. & A. Churchill, 1880. Small 8vo, pp. 117.

WE have gathered an impression from a perusal of this little book that the author's abilities are not fairly represented; that justice is not done to the experience which the writer may be presumed to have had in the class of diseases considered. Indeed, it is not quite clear with what motive, or for what class of readers, the book was written. As a practical work on diseases of the testicle for the student or general practitioner, its advantage over larger and more general treatises is not apparent. Though presenting the subject in an abridged form, the work is neither concise nor sufficiently clear. The essential facts are seldom stated with force or point, and the most salient points are not always the most essential ones. Furthermore, to be of value as a practical work, the subject should have been treated in a less partial manner. Attention is confined in the main to diseases of the testis proper; although hæmatocele, varicocele, and diseases of the epididymis receive consideration. Hydrocele is omitted, presumably because the writer had already written a work on that subject. Functional disorders of the testicle are not referred to, and there is nothing said of affections of the scrotum. We note, in connection with syphilitic diseases of the testicle, the absence of any mention of the secondary affection of the epididymis first described by Dron.

But the title of the book, together with an allusion in the preface to "differences of opinion with the standard authorities," suggests novelties in theory or fact which would at least commend the book to specialists or those already versed in the subject. But we regret to say that here, too, we were disappointed. Barring a few instances where the writer advocates special views on disputed points—generally views already well known, or where new cases are cited—cases interesting enough in their way, though in no wise particularly novel or extraordinary, we find nothing stated in the book that may not be readily referred to in such a standard and excellent work as that of Curling, and, moreover, nothing stated so well.

A Practical Treatise on Nervous Exhaustion (Neurasthenia), its Symptoms, Nature, Sequences, Treatment. By GEORGE M. BEARD, A. M., M. D., etc. New York: William Wood & Co., 1880. Pp. xx.–198.

THERE are unquestionably a large number of persons who suffer from nervous distress, and many of them are otherwise in excellent health, but that it is for the best interest of these persons to read this book seems more than doubtful, and not less so from the clear and pleasing style of the author. That it is likely, if read, to increase the number of those who consult the "Nervous Specialists," and who will be treated by them for ailments which were better let alone and forgotten, or which originate and continue only by reason of violations of commonly recognized rules of health, there can be little doubt.

But is a prophet needed to assure us that people suffer from nervous debility? Was it not recognized and relieved—often with difficulty, then as now—by wise men, long before the present generation? And does it help the sufferer or anybody, except those who wish to make a noise about it, to give it a spurious Greek name?

We believe that such perturbations of the nervous system as are described in this volume are quite as likely to be duly estimated and judiciously treated by the sagacious general practitioner as by those whose specialty seems to be inseparable from the use of that sheet-anchor of imaginative souls, "the battery."

It is notorious that specialists of all sorts are prone to attribute disease in general to pathological change in the tissues they specially affect. In this work the superficially attractive tables of diagnostic differences between "neurasthenia" and anæmia, etc., call to mind the following wholesome passage in Maudsley's latest work: "Little consideration is needed to show how difficult it must be to treat of the condition of the nervous system separately from the quality and activity of the blood; in truth, they constitute together a compound state rather than distinct coöperating conditions."

It would be uncharitable and unjust to assume that in erecting into an entity the varied and often trivial phenomena which are minutely described, the author's design was unworthy, but it must be confessed that many of the so-called "symptoms" of this new disease are as common as the every-day discomforts enumerated by the quacks who advertise to cure "seminal weakness"; and we are sometimes reminded of the minute records of experience made by the disciples of Hahnemann, where a sneeze or yawn occurring after infinitesimal medication is ascribed to the drug as a matter of course. We fear the "well-known physician" alluded to in the following passage, to be found on page 58, may have taken a somewhat similar view—at least we own to a certain sympathy with him. "I was once conversing on nervous diseases with a well-known physician, when, all at once, the orbicularis of one of his eyes began to *twitch vigorously*; he said it was the first time in his life that he had experienced anything of the kind."

A Treatise on Oral Deformities as a Branch of Mechanical Surgery. By Norman W. Kingsley, M. D. S., D. D. S., etc. With over 350 illustrations. New York: D. Appleton & Co., 1880. Pp. xii.–541.

The dentist has too often been looked upon as a mechanic, rather than as a member of a scientific profession. Perhaps, if his duties were confined strictly to the extraction and care of teeth, this would hold true, but within the last fifteen or twenty years, as in other callings, great advances have been made in dentistry, and cases which formerly belonged to the surgeon now naturally fall to the care of the dentist; so that dentistry is rapidly becoming a branch of general surgery. Looking at the subject from this point of view, a brief notice of this work on oral deformities is called for.

The volume is divided into five parts, namely: "Irregularities of the Teeth," "Palatine Defects," "Maxillary Fractures," "The Mechanism of Speech," and "Æsthetics in Dentistry."

Our author states that irregularities of the teeth are uncommon among savages, as the North American Indians and the inhabitants of New Zealand, while they are very often met with among the highly educated and refined. The deformity may be due either to hereditary transmission or to vicious practice. The real cause of the irregularities may be in one of two directions: either too small a jaw or too large teeth; but, whatever their cause, they are amenable to mechanical treatment. As to the age at which treatment should begin, he says: "It may be assumed, as a rule, that, as soon after eruption as it becomes certain that irregular denture is inevitable, there is no longer justification for delay, and that after that period every year increases the difficulties, both mechanical and pathological." He then points out the different methods of treatment by mechanical appliances and the results that may be obtained.

In speaking of palatine defects, he states that the results obtained in acquired are more perfect as to distinct articulation than in congenital defects. The history and application of obturators and artificial vela is then fully given. He considers that surgical operations are entirely uncalled for except in very rare cases. In this connection he makes the following remarkable statement: "Certain it is that it [staphylorrhaphy] has been performed many times when the only apparent object was to gain *éclat* by the skillful use of the knife in a difficult case before an admiring audience, and with no possible hope of even a union or surgical success." This statement is, in the first place, utterly uncalled for, and, in the second place, not true, and we regret that the author should have allowed himself to call in question the honesty and professional standing of those whose opinion is at least entitled to as much respect as his own.

The most interesting portion of the work to the general surgeon is the chapter on maxillary fractures. These are treated in a masterly and thorough manner, and we cordially commend this portion to the attention of all who may be called upon to treat fracture of the bone.

Of the remaining sections, that on the mechanism of speech is interesting, but we think not essential to the completeness of the work; the one on æsthetics of dentistry does not interest the general profession. The author has made a valuable contribution to the study and treatment of oral deformities, and we cordially congratulate him on the success of his labors. We should do the publishers an injustice did we fail to notice the thorough and artistic manner in which they have given the volume to the public.

A Manual of Pathological Histology. By V. Cornil and L. Ranvier. Translated, with notes and additions, by E. O. Shakespeare, A. M., M. D., etc., and J. Henry C. Simes, M. D., etc. Philadelphia: Henry C. Lea, 1880. Pp. xxxi.–784.

This work appeared in France at intervals extending from 1869 to 1876. The translators have sought to condense the original work by omitting comparatively unimportant passages, or such as have become obsolete. They have at the same time made numerous additions, consisting largely of extracts and illustrations from the works of Green, Rindfleisch, J. J. Woodward, U. S. Army, and others. The sections on Tuberculosis, the Blood-vessels, Sarcoma, Carcinoma, the Mamma, and the Classification of Tumors have been for the most part rewritten, and original matter has been introduced.

The translators appreciated that they were about to reproduce a work which, in the light of recent advances in the field of pathology, might be considered old. Indeed, we may say that the earlier portion of the original work barely represented the true state of our knowledge at the time of its publication, much of the work of other countries being ignored in it. It is for these reasons that the work has never been accorded any general acknowledgment by the profession. The difficulties which have therefore beset the translators, in their attempt to make this book represent the present accepted views, have not been surmounted without the occurrence of frequent contradictions, which tend to lessen the value of any production.

In many places throughout the work, we have first a condensation of the original, and then follows, in brackets, a quotation from some recent work on pathology expressing the present ideas. These latter additions, in many instances, modify the opinions promulgated in the former, and even oppose them. The student will find himself unable to accept both views, and, if he understands that the most recent opinion is to be found in the addition, that of the original will have only an historical interest. Thus, in the chapter on Embolism and Thrombosis we find repetition, as well as correction and contradiction, on pages 329 and 330, the explanation of the causation of the embolic area and the description of the changes in infarction, as represented by a quotation from Green's "Pathology," being different from those given by the French authors. This same unhappy, though evidently unavoidable, contradiction is repeated.

In the opening chapter, we have a description of the white blood-corpuscles and of the recent views of some histologists, demonstrating a reticulum in the cell-body, as well as in the nucleus.

In the brief description of nerve-tissues, no allusion is made to the Schmidt's incisures of nerve-fibers.

In the chapter on Tumors, reference is made to the recent labors of Gross upon sarcoma, in which Dr. Shakespeare was himself interested. Brief descriptions of Alveolar Sarcoma, of Cylindroma, and other forms are taken from Rindfleisch, Virchow, and Billroth, and inserted to supply deficiencies.

A "Classification and Condensed Description of Tumors; arranged on Virchow's Histogenetic Basis, from the Lectures of Professor James Tyson," is appended to the chapter on Tumors. This is not only based upon Virchow's classification, but the condensation itself seems to have been largely suggested by the condensed epitome preceding each chapter of Virchow's work. The article on Tuberculosis is, as the editors state, taken almost verbatim from Rindfleisch's article in von Ziemssen's "Cyclopædia," from Woodward's "Medical and Surgical History of the War," 2d vol., and from Wagner's "Manual of General Pathology." It furnishes an historical account of the various theories held upon this subject. In connection with tuberculosis of the lungs, the editors, speaking of the theory of infection, remark: "This theory does not well stand examination, for there are cases where, as even Niemeyer and Buhl admit, minute researches, made upon the cadaver of patients who died of general miliary tuberculosis of the lung, have failed to show a single caseous focus. We are, then, obliged to admit that the hypothesis of an infection by absorption of a caseous product of inflammatory origin can not apply to every case." This view continues to receive adherents, and has very recently been enunciated by Delafield. In the chapter on the changes in Arteries after Ligature, Dr. Shakespeare has embodied the results of his own labors. Though differing from the writings of nearly every other author, as he himself states, they represent some most admirable work in this very interesting department. We are told that the fibrinous clot does not organize, as has been almost universally believed of late years, but that it suffers no other change than that of destruction. The obliteration of the artery is effected by granulation-tissue growing from the intima. Under Diseases of the Stomach, we have a description of a most interesting and rare case of syphilitic tumor of the stomach.

As to the translation, this, though generally well done, is marred by frequent displacement of adverbs and the retention of useless adjectives, making the English awkward at times. Many new figures taken from other works are introduced, many of those in the French edition are omitted, and some of the original work of the American editors is inserted. We notice that figs. 8 and 9, on page 23, reappear as figs. 69 and 70, on page 92. We also recognize the omission to credit fig. 217 as taken from Stricker, and fig. 250 as from Gray.

We do not understand why the American editors should have presented the profession with a translation of this work at this late day, when the works of Wagner, of Billroth, and of Rindfleisch furnish the student with the most recent views upon the subject. True, this is supposed to be a work upon pathological histology, but it answers almost as well for a work upon pathological anatomy, just as works upon the latter subject embrace the former. Yet, in closing our review, we can say that the work is worthy of the perusal of the student of pathology, and that throughout we recognize conscientious, painstaking labor.

A Clinical Treatise on Diseases of the Liver. By Dr. Fried. Theod. Frerichs, etc. Translated by Charles Murchison, M. D., F. R. C. P., etc. In three volumes. New York: William Wood & Co., 1879. Pp. xxvi.–224; viii.–228; viii.–446.

This work is a part of "Wood's Library of Standard Medical Authors," and is a reprint of the English edition of 1860. It was written twenty years before the issue of the present edition, and can not come to us with that newness that a work expressing the latest views on pathology would be likely to possess. It is not necessary for us to analyze the articles *seriatim*, but we may say that the numerous class of affections described in the work is handled with great skill, and many of the views remain tenable at the present time. The publishers have printed the work very handsomely and some of the plates are certainly very fine.

A Text-Book of Physiology. By J. Fulton, M. D., M. R. C. S., Eng., L. R. C. P., Lon., etc. Second edition, revised and enlarged, with numerous illustrations. Philadelphia: Lindsay & Blakiston. Toronto: Willing & Williamson, 1879. Pp. 416.

This work is rather too condensed for the thorough student, although it furnishes the main physiological facts without very much discussion, for the most part in accordance with late scientific research. In giving the functions of the brain, the author gives the localized motor regions as pointed out by Ferrier, but he seems to fall somewhat short of appreciating the latest investigations in other parts; thus, he states that the corpora quadrigemina and the corpora geniculata are the centers of vision, while Ferrier has demonstrated a point in the cortex—the angular gyrus—as the real center beyond the central ganglia. Charcot also has a notion that the fibers of the optic nerves which do not decussate in the optic chiasma cross beyond the corpora geniculata, probably in the corpora quadrigemina, and pass to their real origin in the cortex. Nor is the author at all clear as to the functions of the corpora striata. He makes no mention of temporary paralysis occurring from lesion of the lenticular nucleus, nor of the researches of Charcot, which show that a lesion of limited extent—so as not to involve other parts by pressure—in the anterior two thirds of the internal capsule, causes hemiplegia of the opposite side, and that a similar lesion of the posterior third of the internal capsule causes hemianæsthesia of the opposite side. No mention is made of the researches of Duret and of Heubner respecting the circulation in the brain. It is shown by these observers that anastomoses takes place in the cortex to a much less extent than was formerly supposed, making a softening from an embolism of a minute branch in the cortex almost as certain as if embolism should occur in a central ganglion. The cerebellum is said to be the seat of the muscular sense. With the exception of a few omissions, apparently from an effort on the part of the author to condense too much, we regard the positions taken by him as in the main tenable. Some questions are handled with vigor and are clearly presented. The book is well made by the publishers.

The Advantages and Accidents of Artificial Anæsthesia: A Manual of Anæsthetic Agents and their Employment in the Treatment of Disease. By Laurence Turnbull, M. D., etc. Philadelphia: Lindsay & Blakiston, 1879. 12mo, pp. 322.

This manual contains much valuable information upon the various aspects of the subject. The anæsthetic agents and their combinations are given, with the opinions and conclusions of competent observers as to their administration. The various points in connection with the subject are for the most part well brought out. "Mixed anæsthesia," or "the state of insensibility produced by the conjoined effect of narcotics and anæsthetics," is merely mentioned, under the head of "Mixed Narcosis," and, in view of its eminent supporters and the amount of discussion at present devoted to the subject, receives, it seems to us, too little consideration from the author.

Pharmacology and Therapeutics; or, Medicine Past and Present. The Goulstonian Lectures delivered before the Royal College of Physicians in 1877. By T. Lauder Brunton, M. D., F. R. C. P., F. R. S., etc. With illustrations. London: Macmillan & Co., 1880. 12mo, pp. 212.

A most entertaining, instructive, and philosophical discussion of the subject, divided into four sections: 1. The reason why therapeutics has made such slow progress in the past, as shown by the history of medicine; 2. The methods by which it is at present advancing; 3. Some of the most important results obtained by the use of these methods; 4. The prospects of therapeutics in the future. These heads are treated separately in the most scientific and scholarly way, the text abounding in references explanatory and corroborative. Many chapters, abstract and theoretical, close most satisfactorily with specific applications of the propositions to particular drugs. Complicated discussions are illustrated with very clear and striking diagrams. In addition to much that is of general interest, the work contains the author's original experiments with reference to the action of casca, and its similarity to that of digitalis.

The Microscope and Microscopical Technology. A Text-Book for Physicians and Students. By Heinrich Frey, Professor, etc. Translated and edited by George R. Cutter, M. D., etc. Illustrated by 388 engravings on wood. Second edition. New York: William Wood & Co., 1880. Pp. xii.–660.

We congratulate Dr. Cutter on the reward which has followed upon his arduous undertaking in translating and editing the great work of Professor Frey, as evinced by the appearance, within a comparatively short time after the publication of the first edition, of this exceedingly handsome volume. Dr. Cutter's well-known skill as a translator, even when taxed by so difficult a style as Frey's, was a guarantee at the outset that the merits of the author's work would not be veiled in ambiguity of diction, but that the treatise would enjoy every chance of becoming popular with readers of the English language. Thus happily put before the profession in this country, there was little room for doubt that it would commend itself very widely. That such has proved to be the case is creditable to the discrimination of American physicians, and shows that the subsidiary means to a thorough knowledge of medicine are no longer neglected by them to so great an extent as was the case a few years ago.

The work is so well known that a formal review seems entirely uncalled for at the present time, and we will simply state that the translator seems to have spared no pains to make it answer all purposes for which a purchaser would ever look to it—even to the addition of an appendix giving the price-lists of various makers of microscopes and microscopical accessories and material. Its appearance is in the highest degree creditable to the publishers.

Pseudo-Hypertrophic Muscular Paralysis. A Clinical Lecture. By W. R. Gowers, M. D., F. R. C. P., etc. London : J. & A. Churchill, 1879.

This lecture has already appeared in "The Lancet," and is republished with a valuable bibliographical index and summary of cases by the author. Dr. Gowers has in the past few years contributed several well-written essays upon ophthalmology in its relation to neurology, and upon the clinical features of post-paralytic disorders of movement. The present effort is fully equal to any of his valuable productions, and is full of new material. The prominent feature of the little book before us is the discussion regarding the mechanics of the disease in question. We know of no one who has given us anything like the information contained on pages 31–35, which are embellished, as well, with striking illustrations. We are forcibly impressed with the author's vigorous style and his earnestness in stating what he believes to be the correct clinical features of the disease, and we do not find any evidence of hasty compilation, or of an undesirable repetition of familiar facts.

His consideration of the pathology of pseudo-hypertrophic paralysis, however, is little more than a review of what has been written by Clarke, Charcot, Cohnheim, and others; but the author's deductions are clearly stated. He attaches but little value to examinations of muscular tissue removed by Duchenne's trocar—a conclusion which we are disposed to accept without hesitation.

Works like this are of undoubted value, and are of greater benefit to the student than the more pretentious compilations which cumber the library shelves and simply deal in the rehearsal of well-worn facts.

The Hypodermic Injection of Morphia. Its History, Advantages, and Dangers. (*Based on the Experience of 360 Physicians.*) By H. H. Kane, M. D. With illustrations. New York: Charles L. Bermingham & Co., 1880. 12mo, pp. 354.

The prominence which the hypodermic use of morphia has attained as a therapeutic measure and its wide range of application render it worthy to become the subject of a special treatise. The plan of the author has been to collect the opinions of competent physicians bearing upon all aspects of the subject; these opinions are in each case introduced by a short discussion of the particular points with reference to which they have been expressed. The history of the method, the advantages of different modes of injection, the different solutions employed, accidents following the operation, dose, idiosyncrasy, and narcotism are discussed in succession. Special attention has been devoted to chapters on syncope following injection into a vein and the use of a tourniquet to prevent it, on death from the injection, and on the treatment of opium-narcosis. The morphia-habit is treated of in detail. The book covers the whole subject, and is agreeably written.

The Spectroscope in Medicine. By Charles A. MacMunn, B. A., M. D. Philadelphia: Lindsay & Blakiston, 1880.

Only those who have worked with the instrument are aware of the fascination it exerts on all who commence its study. Great intellect and much wealth have been devoted to unveiling the constitution of the sun and other heavenly bodies by its aid; the presence of the minutest particles of the various elements of any forms of matter is detected by it; new elements have been discovered with it; and, finally, it has been drawn into the service of the physiologist, to aid him in revealing some of the problems of life. That it has not become more popular in the hands of physicians is probably due to an exaggerated idea of the difficulties attending its use. These the present author in great part smooths away. The scope of the work will be best understood by giving some of his chapter headings: Chapter I., "The Prism and its Action on Light"; "Construction of a Spectroscope"; "The various kinds of Spectra." Chapter II., "Instruments and Methods of using them," etc. Chapter III., "The Application of the Study of Bright-Line Spectra to Medicine." Chapter IV., "Physiological Absorption-Spectra." Chapter V., "Absorption-Spectra of the Blood." Chapter VI., "Easy Methods of obtaining the most Important of the Spectra which have been hitherto described"; and the "Application of these Methods." Chapter VII., "Absorption-Spectra of Bile, Urine," etc.

These different points are considered with a detail and clearness that show the author to be fully cognizant of the subject he has undertaken to treat. His style, moreover, is attractive, a feature not always found in purely scientific treatises. This book is without question the best that has yet been published on the subject. To those not familiar with physiological spectroscopy it will prove interesting, while to those who are working in this field it is a necessity.

A Handbook of Hygiene and Sanitary Science. By George Wilson, M. A., M. D. and C. M. (Edin.), F. C. S., etc. Fourth edition. Philadelphia: Lindsay & Blakiston, 1880.

The verdict of the "vox populi," as implied in the demand for a fourth edition, renders a critic's praise or censure superfluous; and Wilson's Handbook is by this time too well known to need much more on our part than a brief notice of its reissue in a revised form. Unfortunately for America, the most characteristic portion of the work—that relating to the administrative functions of medical officers of health, with the legislative definitions of their duties and powers—is as yet of but little practical value to readers here; but in respect of the rules of public hygiene, which are applicable to all countries and to all conditions of men, no better summary exists.

The introductory chapter on personal hygiene, which opened the previous edition, is replaced in the present volume by a concise historical sketch of the rise and progress of preventive medicine, embracing an account of the principal epidemic pestilences of the fourteenth and succeeding centuries, and of the chief measures of sanitary legislation adopted in Great Britain. The statistical showing of a progressive diminution of the death-rate within the past two centuries (the reduction in London being from 80 to 24 per 1,000) affords a sufficient argument against those who decry the practical or practicable importance of sanitary science, and foreshadows the potential further triumphs of hygiene. The remaining chapters have undergone only such alterations as were required to bring them abreast of recent research. The appendix gives a synopsis of the various acts, forms of reports, etc., relating to the duties of public health officials. These, and, indeed, the greater part of the technical details of the book, are too exclusively British in their significance to serve as aught save models to the hopeful imagination of the cisatlantic sanitarian; and the American republishers would have done wisely to secure an American editor. But, despite this minor disadvantage, Dr. Wilson's treatise stands among the best reference-books for all who are interested in the study of the etiology and control of preventable diseases.

Books and Pamphlets Received.—A Text-book of Physiology. By M. Foster, M. A., M. D., F. R. S., etc. From the third and revised English edition, with notes and additions by Edward T. Reichert, M. D., etc., with 259 illustrations. Philadelphia: Henry C. Lea's Son & Co., 1880. Pp. 1030. ═══ Mémoires de Chirurgie. Par le Docteur G. Nepveu, ancien interne, etc. Avec 2 planches. Paris: V. A. Delahaye et Cie., 1880. Pp. 722. ═══ The Venereal Diseases, including Stricture of the Male Urethra. By E. L. Keyes, A. M., M. D., etc. New York: William Wood & Co., 1880. Pp. xiii.–348. [Wood's Library of Standard Medical Authors.] ═══ A Treatise on Foreign Bodies in Surgical Practice. By Alfred Poulet, M. D., etc. New York: William Wood & Co., 1880. 2 vols., pp. ix.–271; vi.–320. [Wood's Library of Standard Medical Authors.] ═══ A Handbook of Physical Diagnosis, comprising the Throat, Thorax, and Abdomen. By Dr. Paul Guttmann. Translated from the third German edition by Alexander Napier, M. D., etc. With a colored plate and 89 fine wood engravings. New York: William Wood & Co., 1880. Pp. x.–344. [Wood's Library of Standard Medical Authors.] ═══ Modern Medical Therapeutics; A Compendium of Recent Formulæ and Specific Therapeutical Directions, from the Practice of Eminent Contemporary Physicians, American and Foreign. By George H. Napheys, A. M., M. D., etc. Seventh edition, enlarged and revised. Philadelphia: D. G. Brinton, 1880. Pp. 604. ═══ Muscle-Beating; or, Active and Passive Home Gymnastics for Healthy and Unhealthy People. By C. Klemm. With illustrations. New York: M. L. Holbrook & Co., 1879. Pp. 56. [Price, 30 cents.] ═══ Die operative Behandlung der Pleuritis bis Trousseau. Inaugural-Dissertation zur Erlangung der Doctorwürde in der Medicin and Chirurgie, vorgelegt der Friedrich-Wilhelms-Universität zu Berlin, und öffentlich zu vertheidigen am 18 März, 1880. Von Otto von Gizycki, aus Gozdawa, Prov. Posen. Berlin: H. S. Hermann. Pp. 32. [From the author.] ═══ Common Mind-Troubles, and the Secret of a Clear Head. By J. Mortimer Granville, M. D., M. R. C. S., etc. Edited, with additions, by an American physician. Philadelphia: D. G. Brinton,

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[Reprint.] Extraction of a Splinter of Wood from the Cornea. By David Webster, M. D. Pp. 3. [Reprint.] ==== The Prospective Advantages of Baltimore as a Medical Center. By John von Bibber, M. D. Pp. 15. [Reprint.] ==== Delle Alterazioni dei Tessuti da Mancata Influenza Nervosa. Ricerche sperimentali a speciale contribuzione della patologia del tessuto muscolare striato. Pel Dott. G. B. Ughetti. Torino: Vincenzo Bona, 1880. Pp. 32. [Reprint.—From the author.] ==== Iodic Purpura. By George F. Duffey, M. D. (Dubl.), etc. Dublin: John Falconer, 1880. Pp. 21. [Reprint.] ==== Caries of the Ankle in Children, etc. By V. P. Gibney, A. M., M. D., etc. New York: William Wood & Co., 1880. Pp. 26. [Reprint.—From the author.] ==== Ethyl Bromide. By Lawrence Wolff, M. D. Pp. 8. [Reprint.] ==== Aspiration of the Knee-Joint. By Henry O. Marcy, A. M., M. D. Cambridge, Mass. Pp. 32. [Reprint.—From the author.]

Clinical Reports.

NEW YORK HOSPITAL.

MERCURIAL POISONING.

Reported by F. M. Townsend, M. D., of the House Staff.

(Service of Dr. W. H. DRAPER.)

A. P., a Frenchman, thirty-four years old, was sent into the Hospital by Dr. Abbe, of the Out-patient Department, October 29, 1879. He gave the following history: During the past four years he had worked in an amalgam of mercury and tin, but had suffered no evil consequences until a year ago. He then noticed occasional tremors and involuntary twitchings in both forearms, and complained of weakness in the lower extremities. These symptoms rapidly grew worse. In a few weeks the tremors had become constant, and the spasmodic contractions of the muscles in the arms and forearms so severe and incessant that he was obliged to quit work. At the same time the loss of power in the legs rendered him unable to walk without assistance.

Rest in bed, with the administration of potassic iodide, proved beneficial, and in three months from the beginning of the attack he had so far recovered as to resume work. The tremor and loss of power had disappeared; and the spasms, though not entirely cured, had so yielded to treatment that they were noticed only occasionally, and ordinary movements could be performed with precision. He continued to work until ten days previous to admission, when a second attack, differing in some respects from the first, occurred.

On examination, he was found well nourished, but with an anxious face, and suffering marked tremor and severe choreic movements in all the muscles of both upper extremities. The shoulders were raised spasmodically, thrown backward, and then drawn forcibly together; the arms and forearms underwent the different movements of flexion, extension, abduction, etc., in rapid succession, but without any regularity. The flexor muscles were more affected than the extensors, and those of the forearms more than those of the arms, so that the most severe and constant movements were flexion of the hands and fingers. The right forearm and hand were intensely swollen, reddened, and œdematous, and, on seizing the part quite firmly, distinct crepitation could be felt in the wrist, and a harsh, grating sensation appreciated in the forearm, as the tendons glided in their sheaths during a contraction. There was some incoördination, due to the constant spasms, but no loss of muscular power and no anæsthesia. Slight tremor and occasional twitchings were noticed in the legs, but he could walk well, and suffered no disturbance of sensation, and the skin and tendon-reflexes were normal. The spasms were unaccompanied by pain, and were decidedly increased by watching the patient, and by all efforts on his part to control them. There were no signs of salivation, and, excepting restlessness and insomnia, no symptoms indicating disturbed functions of any of the viscera.

The plan of treatment pursued was nearly the same as in the previous attack. Potassic iodide, gr. xxx, t. i. d., with Fowler's solution, min. ij, t. i. d., were administered, and the patient was confined to bed. In order to restrict motion of the forearms and hands, these parts were surrounded with a thick layer of cotton and with light splints firmly applied. To overcome the restlessness and insomnia, chloral and potassic bromide, in fifteen-grain doses, were given. The convulsive movements continued during sleep, though much lessened in frequency and severity, a slight contraction being observed every eight or ten seconds. By November 3d remarkable improvement had occurred; the tremor and spasms were limited to the forearms and hands, having entirely disappeared from the legs and arms; the inflammation in the right forearm was much reduced, and the man was able to sleep without an hypnotic. The Fowler's solution was then increased to min. v, t. i. d. Two days later nothing beyond a slight tremor of the hands remained, and voluntary movements could be performed with ease. The patient was anxious to leave, and on November 11th he was discharged cured.

This case is exceedingly interesting, comprising as it does two attacks arising under similar circumstances, yet in some respects differing widely from each other. The difference in duration of the period of invasion in the two attacks (three years and nine months respectively), together with the rapid advance of the symptoms in the second one, shows a heightened susceptibility in the latter instance, probably to be explained by the presence of the metal already existing in the system. The kind of work remained the same; the man handled the mercury, and was at times exposed to its fumes. The fact that partial paralysis affecting the lower limbs accompanied the first, whereas only slight muscular twitchings and tremor of these parts appeared in the second attack, is no doubt due to the patient's leaving off work soon after the appearance of symptoms in the latter instance, thus preventing the nervous system from coming as fully under the influence of the poison as it had previously done. Again, the swollen and inflamed condition of the right forearm and wrist may be looked upon either as a lesion of the disease, or as the result of forcible muscular action. Arguing from its appearing, rapidly developing, and quickly subsiding simultaneously with the other symptoms, and from the fact that the right forearm was much more seriously affected previous to admission than the left, the latter would seem to be the correct view. Lastly, the results of treatment in the two attacks were obtained in different periods of time, the variation being much greater than could be accounted for by the difference in the severity of the attacks. Thus, in the first, it was more than three months before the patient was fully restored to health; and, in the second, less than three weeks—making it highly probable that the rapid result in the latter instance was due to the Fowler's solution. The bromide and chloral were peculiarly well adapted to the case, the intense restlessness and insomnia being quickly allayed under their influence.

Proceedings of Societies.

NEW YORK ACADEMY OF MEDICINE.

A STATED meeting was held March 4, 1880, FORDYCE BARKER, M. D., LL. D., President, in the chair.

BLEPHAROPLASTY BY WOLFE'S METHOD.—Dr. H. D. NOYES presented a boy upon whom he had formed an eyelid by taking a piece of skin from the chest. The boy first came under observation four years ago. He had received severe and extensive burns, which, spreading upon the scalp, over the entire forehead, and down upon the cheeks and sides of the neck, had caused ectropion of both upper eyelids. Four years ago Dr. Noyes operated for the ectropion of the right eye, and, as there was no sound skin upon the forehead, he was obliged to procure a flap, which answered very well, from the skin in the naso-buccal furrow. The lid thus formed served a good purpose. During the past few months the boy had again been under his observation, and, although the ectropion of the left upper eyelid was not excessive, it was annoying, and an attempt was made to correct it. All the available tissue upon the face having been used in constructing the right eyelid, Dr. Noyes regarded it as a proper case for the performance of an operation introduced by Mr. J. R. Wolfe, of Glasgow, and first published in the "Medical Times and Gazette" for June 3, 1876. The operation consisted in taking a piece of integument from a remote portion of the body. He therefore dissected down the everted lid to the necessary degree, and when the wound was fully formed it was an inch and a half long by one inch wide. To fill that space, he dissected the skin from over the ribs, and the piece obtained measured two and a half inches in length by one and a quarter in breadth, or, more exactly, 66 mm. by 33 mm., and was of a semi-elliptical shape. The skin was removed entirely free from subcutaneous fat and connective tissue, quite a difficult thing to do, and looked very much like a delicate piece of white kid. The moment it was separated from its natural position, it shrank to about two-thirds of its previous size. It was immediately placed in warm water to preserve its temperature, and, when the wound to which it was to be applied had been dried by using bits of muslin, it was laid upon the surface, and was found to fill the space exactly, with the exception of a small portion at the outer angle. It was simply laid upon the surface of the wound, and its edges were not tucked beneath the edges of the wound, as was the case in Mr. Wolfe's operation. Gold-beater's skin was laid over it, and also over the surrounding parts to a considerable distance, and collodion was carefully applied. The eyelids were then closed with three stitches, for the purpose of securing absolute immobility. A wad of cotton was then placed over the eye, and held in position by a bandage which covered both eyes. After a few days the bandage was removed, but the other dressing remained in place from December 12th until January 2d. There was absolutely no suppuration, except what came from between the edges of the lids. There was no pain and no swelling. When the dressing was removed, it was found that the edge of the flap was completely preserved, and presented a normal appearance, but at the center the epidermis simply had sloughed. No noteworthy suppuration occurred, and finally the parts healed without special event. While success had followed in that case, it must be very distinctly remembered that the amount of shrinkage which took place in skin thus treated was extraordinary. The result was a supple, movable covering for the eyelid. It had but little sensibility, and did not have its full color, having a pale-yellow tint, but the left lid covered the eye better than did the right. While the operation was not likely to supplant the ordinary methods of plastic surgery, in which the flap still retained its connection with the surrounding parts by means of a pedicle, it showed that skin-grafting might be employed upon a larger scale than had hitherto been regarded possible. Dr. Noyes reviewed the literature of the subject, and mentioned two cases reported by Mr. Wolfe in the "Medical Times and Gazette," June 3, 1876; one by Dr. Wadsworth, of Boston, reported in the "Boston Medical and Surgical Journal" for December 28, 1876; three by W. Zehender, vol. xvii. of the "Klinische Monatsblätter für Augenheilkunde," 1879; one by Wharton Jones, alluded to by Zehender; and two in the "Archives of Ophthalmology," vol. viii., No. 1, p. 94, by Dr. Aub, of Cincinnati. Besides, he had heard of three other cases—two by Dr. Reeve, of Montreal, and one by Dr. Abbott, of Buffalo. He himself had performed the operation in four cases; in two it was done under very unfavorable circumstances. In all, there were fifteen cases with which he was personally acquainted, and of those ten were successful. In some of the unsuccessful cases failure could readily be accounted for by local conditions belonging to the operation, such as complication by other wounds, also by unhealthy condition of the patient, etc. The conclusion reached was, that surgeons, under certain circumstances, would find use for this method of operating, to the success of which the following were important factors: 1. The skin should be dissected free from subcutaneous fat and connective tissue; 2. It should be secured in position, not by sutures, but by coaptation with gold-beater's skin or other similar means, which would maintain absolute immobility during the entire process of union; and, 3. There must be expected extraordinary contraction when the skin was thus severed from its natural attachments.═══ Dr. H. Knapp had always thought that in plastic operations, especially blepharoplasty, sloughing occurred in direct proportion to the small size of the pedicle; the less tissue, the greater the probability of sloughing. The facts in Dr. Noyes's and in several other cases must be accepted, however, and he thought that the indication would be, where there was no skin upon the face or head, to try this procedure, and he regarded it as legitimate, although not very promising. ═══ Dr. F. H. Hamilton spoke of the transplantation of large pieces of integument after complete detachment as not entirely new. It had been practiced occasionally by surgeons from an early day. To this same class of operations belonged also the restoration or reapplication of parts entirely severed. The practice, however, of transplantation of large pieces of integument after complete separation had not hitherto secured the confidence of the profession. If the pieces survived, which was very seldom the case, they became shrunken and insensible often. He asked whether Dr. Noyes thought it essential to success that the piece should be very thin? In anaplasty, as usually practiced, the flap remaining united by a pedicle, a very thin flap was apt to slough, or it would shrink very much. ═══ Dr. Knapp referred to two cases of blepharoplasty without pedicles, which he had seen at Leipsic. The flaps in both sloughed completely. The operator, Professor Thiersch, had said to Dr. Knapp that he knew of only one authenticated case upon record of successful rhinoplasty without a pedicle. ═══ Dr. Hamilton referred to a case that he had seen, in which, a piece of the end of the finger having been cut off, not including the bone, it had been replaced, and had reunited; but when he saw the lad, a few years later, the piece was shrunken, of a pale-yellowish color, and totally devoid of sensibility. It was an annoyance only, and it would have been better if it had never been replaced, or if it had failed to unite, as was usually the case. ═══ Dr. A. C. Post remarked that there was an essential difference between the cases just cited by Dr. Hamilton, where the divided blood-vessels were brought in contact again, and the circulation could be restored through the old channels, and those cases under consideration in Dr. Noyes's paper. He thought that Tagliacozzi had made no reference to transplantation of integument from distant parts without attachment by pedicle. With reference to the presence of subcutaneous fat and connective tissue, he thought something was taught by analogy in the process of budding of plants, where it was regarded as essential to the fullest success that nothing but the bark be used, except the small quantity of woody fiber immediately attached to the bud or germ that was to be transplanted. ═══ Dr. Noyes remarked that the experience of Wolfe was the only direct evidence we had upon the question of the thickness of the flap. In one of his operations he used three pieces of skin; two were exceedingly thin, while the third carried with it more or less of subcutaneous tissue, and that was the one which sloughed, while the others survived. Acting upon that hint, he had made the flap in his case as thin as possible, leaving the subcutaneous tissue untouched.

Diphtheria.—The second paper for the evening was read by Dr. C. E. Billington. It embraced the history of forty attested cases of diphtheria, with remarks on treatment and diagnosis. It was corroborative of his views presented to the Academy in a paper read March 16, 1876. The cases were attested by Drs. William T. White and Andrew H. Smith. The principle which Dr. Billington believed to underlie all sound theory and practice in diphtheria was, that the disease should be regarded as primarily a local affection, and that all its specific constitutional phenomena were simply secondary results due to absorption from the local source. He held that view for the following reasons: First, because in some hundreds of cases, of all grades of mildness and malignancy, which he had had the opportunity of observing at quite an early stage, in ten years of dispensary practice, the local membranous affection had always preceded the constitutional symptoms peculiar to the disease. There were no distinctive primary symptoms of diphtheria—those which were often described as such being simply common to the onset of various catarrhal throat affections. But it had been stated, *per contra*, by excellent authorities that death or paralysis had resulted from the primary poison of diphtheria in cases in which no membrane had been present. It was very easy, however, to be deceived upon that point. He had not infrequently seen cases in which the constitutional symptoms of diphtheria were evident, but on careful examination no membrane was visible. Such cases would be mentioned in the present paper. In all such instances, however, membrane had been proved to exist in some concealed position. Again, it was well known that epidemics of diphtheria and scarlatina were frequently associated. How naturally, under such circumstances, might a death from malignant scarlatina without eruption be erroneously attributed to diphtheria! The fundamental laws of disease, like the other laws of nature, were uniform. Should the evidence of a hundred concurring positive observations be outweighed by that of a single negative one, the conclusive proof of which was in the nature of things well nigh impossible? Secondly, because the gravity of the constitutional symptoms was generally proportionate to the extent and depth of the membranous affection. Thirdly, because the employment of proper local disinfectant treatment did in many cases promptly mitigate or quite dispel constitutional symptoms previously existing, or, if early employed, prevent either wholly or in great measure their occurrence. This was notably true of the symptom albuminuria, which had so often been adduced as especially characteristic of diphtheria, and as an evidence of its primarily constitutional nature. The laws of its relation to diphtheria being properly understood, it became a strong argument for the opposite view. Fourthly, because proper local disinfectant treatment was beyond all comparison the most effective of the means at our command for successfully combating the disease. With reference to the differential diagnosis of follicular amygdalitis, with patches of firm exudation, marked constitutional symptoms, some enlargement of the cervical glands, fœtor of the breath if there were ulceration—the whitish smearing extending perhaps to the uvula and the palatine arches, it was not to be made by the fact that the exudation was limited to the tonsil or tonsils, nor by its short duration, nor by the test of infection or non-infection, nor by the presence or absence of albuminuria. Whitish points projecting, or liquids oozing, from the lacunal orifices were pathognomonic. The single patches referred to were usually situated on the greatest convexity of the tonsil—that is, the portion that looks toward the uvula or the opposite tonsil; while diphtheritic membrane was rarely if ever limited to that position, but when it occurred in a small patch was rather more marginal. In the *treatment* of diphtheria by methods of local disinfection, the danger to be most sedulously avoided was irritation. Swallowing a small quantity of water at frequent intervals would doubtless be of some utility in helping to remove foul secretions from the throat. He had, however, instead employed in most cases, in alternation and usually at half-hour intervals, teaspoonful doses of the following pleasant mixtures: First, two scruples of chlorate of potassium, with half a fluid-ounce of glycerine and two fluid-ounces and a half of lime-water; second, one fluidrachm of the tincture of the chloride of iron, with a fluid-ounce, each, of glycerine and water. He had omitted the use of the latter mixture in some cases with advantage, because of its irritant action. It was far from being a specific for the disease. He had also had the throat sprayed very frequently, when practicable, by means of a hand-atomizer, with a solution of two minims of carbolic acid in four fluid-ounces of lime-water. The recognition of the true principle in the treatment of diphtheria was nearly as ancient as the description of the disease. That it had not long ago been universally adopted and utilized by the profession, to the saving of many thousands of lives, was because its discovery was not accompanied with that description of the details necessary to its successful application. In many bad cases he had, as an item of the first importance, washed the affected surfaces at suitable intervals by means of a syringe. The instrument employed was the Roosa hard-rubber ear-syringe; the liquid, a weak solution of common salt in tepid water. It should be thrown through the open mouth into the throat, or through the nostrils into the nasal passages and the pharynx, and continued until the foul and poisonous secretions were thoroughly washed away and fœtor was corrected. The washing should be repeated two or three times a day. The proper manner was, to seat the child on the lap of one person, who should secure his hands. Another should stand behind him and support the back of the head (which should be inclined forward) against his breast, holding it firmly with a hand on each side. A third could then inject the nostrils, and the stream should be thrown in with considerable force. For young children, Dr. Billington discarded unpleasant medicines, such as quinine, cubebs, etc. Stimulants might be useful in the later stages of protracted cases and in convalescence. Proper nutrition was of the greatest importance, and his chief reliance was upon milk, given freely and often. A brief outline was then given of forty attested cases, of which six terminated fatally; but, in thirty-eight cases treated with such efficiency as was practicable under most unfavorable circumstances, there were four deaths, a little over ten per cent., and about the same result had been obtained in the former series of one hundred and twenty-five dispensary cases. The gravity of the disease in the thirty-four patients who recovered might fairly be stated as follows: Very mild, three; mild or moderately severe, fifteen; decidedly severe, five; extremely severe, including three gangrenous ones, eleven. Of five in which the larynx was involved, three died, and two recovered. In the three fatal laryngeal cases, the children were too young to admit of spraying the larynx. The ages of the patients in the thirty-eight cases were as follows: One year old or under, six; from one to two, five; from two to three, five; or, sixteen of three years or under. The ages in the fatal cases were respectively ten months, eighteen months, two and three years. The duration of the membranous disease in the thirty-four cases of recovery was as follows: Two days, 2; three days, 2; four days, 4; five days, 5; six days, 6; seven days, 2; eight days, 1; ten days, 1; twelve days, 1; thirteen days, 2; fourteen days, 3; fifteen days, 1; seventeen days, 2; twenty-two days, 1; twenty-seven days, 1. In fifteen of the thirty-four cases there was nasal complication, and throat and nasal syringing was employed. Unless syringing was properly done, it was not only useless, but injurious. The urine was tested for albumen in fourteen cases, including a fair proportion of the most severe, and in only *one* was any trace of albumen found. He regarded the occurrence of albumen in the urine as rather the exception than the rule in cases of diphtheria which were properly treated. Success in the treatment of diphtheria would never be obtained, except by the closest, the most determined, and the most intelligent attention to every detail, with a dexterity in manipulation and an adaptation of means to each particular case that could only be the result of experience. ═══ Dr. A. Jacobi remarked that the conclusions reached by Dr. Billington were the same as those which he had reached years ago. His first article was read in 1860 ("Am. Med. Times," Aug., 1860), and was the first published in this part of the country during the present epidemic, which had now lasted twenty-two years. His second paper was read before the County Medical Society, and was published in the "Am. Journal of Obstetrics," May, 1868. The paper to which Dr. Billington had done him the kindness to allude was published in the February number of the "Journal of Obstetrics," in 1875. The conclusion which Dr. Jacobi had reached was, that in a majority of fatal cases of diphtheria death occurred from mismanagement. That was particularly true of the worst cases. If a case of nasal diphtheria terminated fatally, it was because of inefficient treatment or mismanagement. Of course, occasional cases of diphtheria occurred which proved fatal, no matter what might be done, but such were exceedingly rare. He then referred to cases which illustrated the value of details in management, and in which he knew that, from the time frequent cleansing and disinfectant treatment began, the patients commenced to get well. When marked swelling of the glands about the angles of the lower jaw occurred, no matter whether any membrane could be seen or not, we might be sure there was nasal diphtheria; and the membrane would appear within a day or two. Their swelling showed that they were poisoned from the nasal mucous membrane, with which they had such direct lymphatic connection. When nasal injections were given, every half hour perhaps, within twelve hours the glandular swelling was often reduced say one half; and this was proof that not only the poisoning occurred rapidly, but also the elimination of the poison and consequent recovery. He had seen that in many instances, and so, evidently, had the author of the paper. There was one point upon which he insisted. It was always urged by parents, also by nurses, and frequently by doctors, that the child must be allowed time to sleep. Now, those who would get well only by efficient treatment would sleep the sleep of death, if allowed to sleep undisturbed. The septic poisoning caused a tendency to sleep, which, so soon as they were let alone, sent them off into sleep, and, if such cases were to be cured, they must be within thirty-six or forty-eight hours, or the patient was gone. Therefore those patients should not be allowed to sleep to the prevention of the regular, systematic, persistent use of the injections and medicine as prescribed, and that might perhaps be as often as every half hour, day and night. If such persistent use of the local treatment was kept up, the patient would probably be saved, whereas, if it was neglected and the patient was allowed to sleep, the case would probably terminate fatally. Cases in which the child was not troublesome, but quiet, were very apt to be exceedingly dangerous. In the worst cases the pulse might not be higher than 70, 80, or 90; and the temperature 101° or 102° F.; and, if such patients were to be saved, they must be attended to unremittingly with such local measures as were indicated. With reference to stimulants, he would say that the class of cases in which they were required was that in which septic poisoning was manifest, and in such cases one, two, three, four, six, eight, or more ounces of brandy *per diem* might be administered to a child three years old, with the result of saving life. He fully believed that lime-water was inert, and might as well be replaced by something else. For the last twenty years he had regarded diphtheria as primarily a local affection; but, at the same time, there were cases in which the general symptoms did precede the local symptoms or appeared at the same time with them. He felt very positive that he had seen cases in which the general symptoms led, and so long ago as 1860 he called them cases of diphtheritic fever, the membrane appearing within two or three days. He had no doubt that, in a few cases, the poison entered the system through the immense lake of blood in the lungs. With reference to follicular amygdalitis, he had not seen a case in which he could not introduce a probe into an old fistula whenever he had to deal simply with a local disease of the excretory ducts of the tonsil. Patients who had had attacks of amygdalitis were very apt to show white spots on the tonsils several times through the winter; but, no matter how thick the secretion which pointed to the surface, a probe could always be run through it and deep into the tonsil, and the question of diagnosis was thus at once settled. He did not believe in allowing the membrane to remain as a protection to the mucous membrane, for it became a focus of septic poisoning. Yet no one could be more alarmed than himself at injurious removal of the exudation, and he would rather wash and syringe for a long time than make an ineffectual attempt to remove a piece of membrane that was not perfectly loose. The tonsils might be covered by diphtheritic membrane for two weeks without any glandular swelling whatever, but, so soon as it extended to the neighboring parts, there would be an increase of fever and the neighboring glands would become involved. So far, therefore, as the tonsils alone were concerned, he would not be so urgent regarding the early removal of the membrane.——Dr. J. H.

Douglas referred to a simple apparatus by which constant irrigation of the nasal cavity could be maintained without injuring the nasal mucous membrane or being hindered by the movements of the child. It consisted in simply attaching a piece of rubber tubing to a hard-rubber syringe. He regarded lime-water as very useful as a local application for cleansing purposes. His custom was to wash out the posterior nares thoroughly with warm salt-and-water or lime-water from the beginning. The membrane upon the tonsils was of the least importance. The nasal discharge could be readily removed by the simple apparatus mentioned, and in that manner he had been able to manage most of his cases successfully.

NEW YORK PATHOLOGICAL SOCIETY.

A stated meeting was held March 10, 1880, the President, Dr. Thomas E. Satterthwaite, in the chair.

Dissecting Aneurism, with Rupture of the Aorta into the Pericardium.—Dr. G. L. Peabody presented three specimens. The first was for a candidate, and was a dissecting aneurism of the abdominal and thoracic aorta. ═══ The second was from the body of a woman, forty-nine years of age, who died on the day she was admitted to the Chambers Street Hospital. She fell in the street, lost consciousness, revived, was able to walk to the station-house, was taken to the hospital, where physical examination revealed nothing definite, and she sank rapidly, and died two hours after the attack. An autopsy, five hours after death, showed the pericardium to contain fourteen ounces of blood, which had come from an opening in a small aneurismal dilatation of the ascending portion of the arch of the aorta. The blood had dissected between the layers of the media for a distance of two and a half inches. The thoracic aorta contained atheromatous patches. The heart was normal. There were several small openings in the pericardium through the wall of the aneurism. There were a few patches of atheroma in the circle of Willis. The kidneys contained granular casts. ═══ The third case occurred in a man, fifty years of age, a moderate drinker, with no history of constitutional syphilis, who on the day of his admission to the hospital fell unconscious. On admission he was conscious, his respiration was quick and shallow, his temperature was 98° F., his heart-sounds were feeble, but there was no murmur. There was slight œdema of the face. During the first few hours after admission he had total suppression of urine. After active treatment by means of cupping, poultices, etc., he passed a small quantity of urine, which was loaded with albumen, and contained granular casts, blood, pus, and renal epithelium. Two days after admission a soft, blowing, double murmur was heard over the entire præcordium. He suddenly fell back dead, as he was rising to take a glass of water, having been under observation two days and a half. At the autopsy, twelve hours after death, the arteries at the base of the brain were found atheromatous. The pericardium was enormously distended with blood, the quantity being 820 cubic centimetres, which had come from an aneurismal sac of about the size of a goose's egg. The opening was in the outer wall of a dissecting aneurism, and not only the intima but the layers of the media were torn completely through for the entire circumference of the aorta, about half an inch above the aortic valves, which, together with the others, were normal. The muscular tissue of the heart was fatty. The kidneys were the seat of chronic diffuse nephritis. The liver was fatty and pigmented. In all three cases the dissection occurred, not, as Laennec formerly taught, between the media and the adventitia, but between the laminæ of the media. The intima was considerably thickened, and there was atheroma in a great many places, but specially noticeable at the seat of the ruptures.

Recurrent Sarcoma of the Orbit.—Dr. C. S. Bull supplemented the history of a specimen of sarcoma of the posterior hemisphere of the eyeball presented at a previous stated meeting [see March number, p. 301]. The eye was enucleated July 7, 1879. In October the growth had returned, and a mass projected two inches beyond the orbital margin. The patient suffered from a gnawing pain in the orbit and a pain in the head, but the headache was the only symptom referable to brain lesion. She was otherwise in apparent health. The mass was at once removed. None of the adhesions were firm, except at the apex of the orbit. The tissue in the optic foramen and the sphenoidal fissure had a grayish appearance. So far as the disease could be traced, it was scraped away, and a twenty-grain solution of chloride of zinc was applied. The orbit filled with granulations from the bottom. On December 3d, a nodular swelling was noticed in the skin of the upper eyelid, at the external angle, and was growing forward and inward toward the median line. On the 27th it had reached the size of a walnut. The growth was completely removed. The periosteum was found extensively diseased, but, by careful gouging and scraping, all the superficial portion of the bone was removed. The wound healed by first intention, the orbit had filled entirely by the granulation process, and, what was remarkable, the opening was covered by skin from the outer to the inner canthus, and from the upper to the lower orbital margin. Another nodule had appeared at the inner angle of the orbit, was reaching down upon the superior maxilla, and the left nostril was partially closed. The growth was spreading between the outer wall of the left nostril and the turbinated bone. The specimen presented was a myxo-sarcoma. The original tumor was a small, round-cell, non-pigmented sarcoma. An interesting feature of the case was the notable absence of head symptoms.═══ The President believed it to be somewhat rare for a recurrent tumor to be a myxo-sarcoma when the original growth had been one of the ordinary varieties of sarcoma.═══ Dr. Bull remarked that the secondary tumor removed from the outer half of the upper lid was also a myxo-sarcoma, but that, in addition, it contained fusiform cells.

Fibrinous Pericarditis.—Dr. J. F. Ridlon exhibited a heart, with its pericardium, both of which had a thick fibrinous exudation upon their surfaces. The patient was admitted to St. Luke's Hospital, and died twelve hours afterward. When admitted she was nearly moribund, and had marked dyspnœa. A history of rheumatism was obtained, the attacks occurring almost every year since 1850, and the patient had been conscious of having some form of heart-disease during the last twelve years. There was evidence of pneumonia at the left apex. At the autopsy eight ounces of fluid were found in the pericardium, also the thick fibrinous deposit upon both the parietal and the visceral surfaces of the pericardium. The aortic valves were atheromatous, the mitral valve was insufficient, the left pleural cavity contained twenty ounces of turbid serum, the costal pleura was covered with fibrinous exudation, and there was consolidation of the left lung at the apex. The kidneys were apparently normal. The urine had contained twenty per cent. of albumen before death.

Epithelioma of the Leg.—Dr. Elizabeth M. Cushier presented a specimen, accompanied by the following history: A married woman, aged thirty-two years, with a good family history, had had two living children, and one abortion (the latter having occurred about ten months ago, without apparent cause, at the sixth week of utero-gestation), entered the New

York Infirmary for Women. Her general health had always been good. The affection for which she entered the Infirmary was of seven years' duration, and had first revealed itself by a pain in the upper and anterior part of the right leg, unattended by redness or swelling, and worse at night. Two or three years later, a spot of discoloration made its appearance over the inner aspect of the tibia, in its middle portion, and this spot was painful at times. About two and a half years ago the patient injured her leg in the same region, and since then she had had no freedom from the pain. A few months later she noticed, for the first time, a swelling over the painful region, which was made up of little lumps. From the time the swelling appeared the intensity of the pain diminished, yet at times it was severe. The swelling and redness increased, but otherwise there was little change in the case until last May, when the surface opened and became an ulcer that spread rather slowly. Its surface was quite flat, and there was a slight discharge of watery fluid from it. In the course of last summer granulations became so abundant as to project above the surrounding skin. Subsequently, the ulcer increased rapidly in size, and began to heal in the center. On February 13th the woman was in excellent general health, and three months advanced in pregnancy. There was an ulcer about two and a half inches in diameter, circular, and having its entire center filled with papillomatous growths, which, although crowded together, could be readily separated from each other, did not bleed upon handling, and furnished a slight discharge. About two and a half inches below the head of the tibia there was a small nodule, somewhat sensitive upon pressure. From the history and the appearance of the limb, Dr. Cushier thought it a case of either syphilis or epithelioma. Papillæ were removed and properly hardened, and sections of them showed the cylindrical masses of large epithelial cells characteristic of epithelioma. Dr. R. F. Weir and Dr. I. Adler saw the case in consultation, confirmed the diagnosis of epithelioma, and assisted at the amputation, which was done antiseptically and at the knee-joint, and the result had been most satisfactory. The chief point of interest in the case was with reference to the differential diagnosis between syphilitic ulceration and epithelioma. The cicatrization at the center of the growth had been regarded by some who had seen the case as speaking in favor of its syphilitic origin, and as not belonging to epithelial neoplasms; but Thiersch, and also Neumann, had described a form of epithelioma in which such cicatrization was a distinguishing characteristic. ═══ Dr. M. PUTNAM JACOBI remarked that Billroth had given a description of flat epithelioma of the skin quite coinciding with that of Thiersch. ═══ Dr. J. H. RIPLEY referred to a case in which iodide of potassium was administered, the ulcer seemed to improve, and it was thought that a mistake had been made in diagnosis. In view of Dr. Robinson's case of epithelioma of the larynx, in which the patient recovered entirely while wearing a tracheotomy-tube, he thought that it would have been legitimate to wait for the further development of the case before amputating the leg. He did not see that any harm could come from such postponement of the operation. ═══ THE PRESIDENT, referring to carcinomata in general and the possibility of a radical cure after operation, stated that he knew of an instance where a scirrhous carcinoma of the breast was removed seven years ago, and still showed no signs of recurrence. The diagnosis of carcinoma had been made with the microscope, and he had every reason to believe it was correct. Probably, in some instances, even of the more malignant forms of carcinoma, the growth never returned after removal, though of course the percentage was very small. ═══ Dr. RIPLEY remarked that there was room for doubt as to the diagnosis in many cases of reported cure of cancer, and that the more recent cases of that kind were probably the most valuable. ═══ Dr. W. M. CAR-

PENTER referred to a case in which a breast containing a cancerous nodule, proved to be such by the microscope, was removed four years ago, and the disease had not returned.

NEW YORK SURGICAL SOCIETY.

A STATED meeting was held January 27, 1880, Dr. H. B. SANDS, President, in the chair.

TREATMENT OF COLD ABSCESS.—Dr. LANGE presented three patients who had had caries of the spine, and read a history of their cases, with remarks [Dr. Lange's paper will be found on p. 476 of the May number of the "JOURNAL"].

POPLITEAL ANEURISM TREATED WITH ESMARCH'S BANDAGE.—Dr. R. F. WEIR read a paper on a case in which death had followed the use of the elastic bandage in the treatment of popliteal aneurism. The aneurism had been subjected to two trials of this mode of treatment; the first one occurred forty-eight hours before the second one, and lasted four hours and twenty-five minutes, the elastic bandage being on the limb during all this time. No ill effects followed, and the tumor remained consolidated for twenty-four hours, when pulsation recurred. The day following, i. e., January 18th, the elastic bandage and tubing were again applied, leaving the tumor exposed, and the tubing was kept on for two hours and fifty minutes, and the elastic bandage for four hours longer. At the end of the time the tumor was found firm and pulseless, and the patient, who had borne all this compression without the aid of an anæsthetic, was in a comfortable condition; but the next morning he was found much depressed, and with a radial pulse nearly absent. The limb was cold, but in a few hours this condition passed off in a great measure, though there yet remained a patch over the lower and anterior aspect of the leg, which had a dusky reddish hue. No reaction occurred, and twenty-seven hours after the cessation of the compression treatment the patient died. No evidences of gangrene were found in the tissues of the leg or thigh, but the heart was the seat of marked fatty degeneration (Quain's). The aneurism was filled with a firm recent clot. Dr. Weir detailed at some length the results of prolonged ischæmia in other cases, and showed the rarity of gangrene in other methods of arterial compression. A safer plan of elastic compression was also presented at the close of the paper. ═══ Dr. G. A. PETERS referred to a case of subclavian aneurism which occurred in his service at the New York Hospital about one year ago. Ether was administered, and distal pressure, applied to the arm up to the tumor, was kept up for three and a half hours, and no unfavorable results followed. The patient received two applications of pressure, and went out of the hospital apparently cured. He subsequently died in North Carolina, but a post mortem was not obtained. ═══ THE PRESIDENT remarked that Mr. Bryant's fatal case, to which Dr. Weir had alluded, was one of aneurism of the abdominal aorta. Pressure was made upon the distal side by means of a tourniquet, and was kept up for twelve hours. An interval then elapsed, when the pressure was renewed, and kept up for four hours. The patient died eleven hours after the operation, and it was believed that death ensued in consequence of damage done to the peritonæum and to the small intestine, as evidences of peritonitis and contusion of the intestine were found post mortem. ═══ Dr. T. M. MARKOE suggested the question, whether in using Esmarch's bandage in these cases we were not adding an unnecessary element of danger in entirely arresting the circulation in the limb below during so long a period. Was there, he asked, anything gained in the efficiency of the compression, as far as the aneurism went, by stopping the entire circulation in the limb? In some few cases there might be, but in most of the recorded instances compression of the arterial trunk leading to the aneurism could be perfect without it. ==== Dr. J. C. Hutchison referred to a case which came under his observation in St. John's Hospital, in Brooklyn, and under the immediate care of Dr. Freeman. It was a popliteal aneurism; and Dr. Freeman decided to treat it by the use of Esmarch's bandage. He first applied a flannel bandage from the toes to the upper part of the thigh, over it the ordinary elastic bandage from the toes up to the tumor, then around the tumor and just above it, again encircling the thigh. The elastic bandage was then continued up the limb a few inches, when the rubber tube was applied, and the bandage was removed. The tube was kept on for one hour and twenty minutes, and at the end of that time the pulsation in the aneurism had ceased entirely. Dr. Freeman considered it expedient to keep up pressure by some means, so digital pressure was maintained for one hour and five minutes, and at the end of that time no pulsation could be felt. On the following day there was some pulsation, but the doctor thought it safe to apply digital compression, and did so, continuing it for three hours and a half. When the fingers were removed, pulsation had entirely ceased. It did not return, and the cure was entirely satisfactory. ==== Dr. T. T. Sabine referred to a case of popliteal aneurism on the right side, which came under his care in Bellevue Hospital. An Esmarch bandage was applied, and, without ether, was kept on one hour and a quarter. A horseshoe tourniquet was then applied, and kept in position two hours and a quarter, when all pulsation in the tumor had ceased, and the tourniquet was removed. On the following day pulsation had returned, and it increased so that at the end of eight days after the first treatment by pressure a second attempt was made to effect a cure by the same means. The patient was put under the influence of ether, the elastic bandage was applied and kept in position for three hours and a half, and then the horseshoe tourniquet was adjusted and allowed to remain three hours and a half, and the result was a cure. ==== Dr. Markoe remarked that it did not appear, in the reports which had been made, exactly how much Esmarch's bandage had contributed to the cure of the cases, because it was used for a certain length of time, then other methods of making pressure had been substituted, and after that it was noticed that the cure was complete. Whether anything was gained by using Esmarch's bandage in addition to compression of the artery by other means, was a question. If a proper case should again present itself to him for treatment, he would exhaust the ordinary modes of making compression before resorting to Esmarch's bandage. ==== The President remarked that this method, like all others, must abide the test of experience. While he would agree with Dr. Markoe that all other methods of compression should be tried first, he could hardly believe that such pressure would be equally efficient and likely to cure the aneurism. The object of this method was to effect coagulation of blood within the sac in the course of a few hours, and thus secure a very rapid cure of the aneurism, and it seemed to him that such coagulation was most likely to be secured when the stagnation of the blood in the aneurismal tumor was perfect. It seemed to him also that complete compression of the main artery of the limb never could cause such perfect stagnation as would be secured by the application of Esmarch's bandage; for collateral vessels would still carry some blood through the tumor, and, although the quantity might not be great, it might turn the scale against a cure. But in that case, after digital and instrumental compression had failed, he did not see why treatment by the use of Esmarch's bandage might not be just as likely to secure the desired result as if it had been resorted to in the beginning.

Intestinal Obstruction.—The President related the following case, with a view of obtaining the experience of the members with reference to one point in connection with obstruction of the bowels. The patient was Dr. Scribner, of Tarrytown, who had suffered from intestinal obstruction for about a year and a half. Dr. Sands saw him first on Thursday, January 22d, when he found that he had had complete obstruction of the bowels for six days, yet his general condition was very good. There was but little abdominal distention, his pulse and temperature were normal, and he could walk around the room, although he felt much more comfortable when lying upon the sofa or bed. At that time his condition was not such as to demand surgical interference, and yet it was intimated that some operation might become necessary, should no movement of the bowels occur. There was no history of peritonitis. Constipation had come on gradually, being at times complete for a few days; he was usually relieved by a laxative, and occasionally he vomited and had some colicky pain, which was described as commencing upon the right side, passing to the left, and referred by the patient to the transverse and descending colon. One physician, who attended him, had expressed the opinion that he had stricture of the small intestine, founding his opinion upon the statement of the patient that he had been treated for duodenitis. Dr. Sands was not able to determine the seat of the obstruction. Digital examination of the rectum was negative in result. On Sunday, January 25th, he was summoned in haste, and when he arrived found that the patient had been vomiting almost incessantly, and that he had become much reduced in strength in consequence of the vomiting and pain. Dr. Sands then proposed to put him under the influence of ether, and make a manual examination of the rectum for the purpose of determining if possible the seat of the obstruction, and then to resort to such treatment as the investigation might suggest. He was, however, foiled in attempting to introduce his hand into the rectum. He then caused water to be injected, and the quantity measured, and it was found that, by using some force, fifty-two ounces passed into the intestine. It was with regard to the quantity of water injected that he wished to obtain the experience of the members of the Society. It was inferred by some, that because so large a quantity of water entered the bowel, the constriction could not be low down. On Tuesday, January 27th, he visited the patient, and found that he was very much worse than on his visit on Sunday. His temperature was 101·6° F., his pulse 125, his suffering was so great that he was anxious to die, and the probabilities seemed very great that he could not long survive. The patient's relatives were very anxious that something should be done, and ether was again administered, the sphincter muscle nicked, and the hand introduced, when Dr. Sands found that he could not pass it through the upper part of the rectum because of the rigidity of the gut. He thought he could appreciate a stricture high up, at about the point where the rectum became continuous with the colon. Acting upon this impression, he opened the colon in the left lumbar region in the usual manner. It was distended considerably with gas, and when opened was found to contain a certain quantity of fæces. He thought the obstruction was low down in the colon. The question was, what quantity of water injected into the bowel would negative the idea of stricture in the sigmoid flexure? Anatomists did not agree regarding the quantity which could be injected into a normal colon, this being variously estimated at from three to nine pints. English writers made but little reference to the injection of water as a means of determining the seat of stricture. The Germans had paid more attention to this point, and König stated that, unless the colon were obstructed, several quarts could be injected into the large intestine. In this case, if the stricture should prove to be situated in the sigmoid flexure, it would follow that the portion of intestine below it might hold fifty-two ounces. ═══ Dr. Weir recalled three cases in which the question was decided pretty thoroughly. Two were cases of stricture of the sigmoid flexure, and the third was a case of stricture in the middle of the transverse colon. In all three cases the occlusion of the gut was complete. In each of the cases in which the stricture was in the sigmoid flexure he was able to throw in three pints of fluid. The situation of the stricture in all the cases was proven by post-mortem. In the case in which the stricture was in the transverse colon, four and a half pints could be thrown in. These cases seemed to confirm Brinton's rule, that the large intestine would hold nine pints of fluid. But in two other cases of intestinal obstruction, where the occlusion was not insurmountable, the rule had not held good, and he was able to pump in considerably more fluid than would be called for in stricture of the sigmoid flexure. In one case he could, as Battey had shown, force an injection out with the vomited matters. Dr. Weir thought that, if, as in his first cases, the occlusion was complete, the injection-test was of service, but, if it was incomplete, the fluid might go beyond the stricture, and how far we could not tell. He had felt that a capacity of only three pints indicated stricture of the sigmoid flexure, and that nine pints would fill the entire large intestine, especially if he could confirm it by the introduction of a large flexible rectal bougie, and for that purpose he preferred the French black tube, on account of its greater flexibility. ═══ Dr. E. L. Keyes referred to a case of perfectly tight stricture of the sigmoid flexure, of many years' duration, in a woman, verified by post-mortem, and for which he performed lumbar colotomy. A little less than one quart of water could be thrown into the rectum in that case. He thought that the capacity of the rectum and colon varied very much in different cases, according to the muscular irritability of the individual. Some persons could not receive more than one quart, thrown in as gently as possible, while in one case of healthy lower bowel he had, for experimental purposes, succeeded in throwing in three quarts of thin flaxseed tea without producing decided discomfort. He regarded Wales's long flexible *red* tube as the best instrument for detecting stricture of the rectum high up or of the colon low down. The *black* tube would sometimes bend, but such a tube as the red one he frequently passed in to the distance of twenty inches. Such a tube also could be converted into a *bougie à boule* after its insertion. He thought that the finger could not, ordinarily, be made sufficiently available to diagnosticate stricture of the rectum situated high up.

Dr. Peters exhibited soluble drainage-tube material, consisting of decalcified small bones of animals, that had been furnished him by Dr. J. Collins Warren, of Boston.

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Reports on the Progress of Medicine.

QUARTERLY REPORT ON GENERAL MEDICINE.

No. II.

By W. H. KATZENBACH, M. D.,
ATTENDING PHYSICIAN FOR DISEASES OF THE CHEST TO THE OUT-DOOR DEPARTMENT OF BELLEVUE HOSPITAL.

1. Ratton, J. J. L.—On the origin of tetanus. "Brain," Jan., 1880.
2. Quinquaud, E.—Pathologico-chemical researches in clinical hæmatology. "Archives of Med.," Feb., 1880.
3. Carmichael, J.—Two cases of lesion of the temporo-sphenoidal lobe of the brain. "Jour. of Anat. and Physiol.," Jan., 1880.
4. Banga, H.—A case of paralysis of the right serratus major muscle. "Jour. of Nervous and Mental Disease," Jan., 1880.
5. Beatson, G. T.—The disease called sturdy in sheep, in its relation to cerebral localization. "Jour. of Anat. and Physiol.," Jan., 1880.
6. Seguin, E. C.—The intra-buccal method of faradizing the lower facial muscles. "Archives of Med.," Feb., 1880.
7. Wilson, H. L.—Sciatica relieved by galvanism. "Atlanta Med. and Surg. Jour.," Jan., 1880.
8. Gowers, W. R.—Illustrations of the diseases of the pons Varolii. "Brain," Jan., 1880.
9. Quincke, H.—Ueber coma diabeticum. "Berlin. klin. Wochenschr.," Jan. 5, 1880.
10. Goode, B. P.—Notes of five cases of thoracentesis. "Cincinnati Lancet and Clinic," Jan. 24, 1880.
11. Garel.—Double mode de combinaison de l'anesthésie provoquée et de l'anesthésie par transfert avec oscillations consécutives. "Lyon Méd.," Jan. 11, 1880.
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1. Dr. Ratton gives five propositions in regard to the *origin of tetanus:* 1st. Peripheral nerve-irritation is a cause of tetanus. 2d. Peripheral nerve-irritation is present in all cases of the disease. 3d. It produces eventually the group of symptoms known as tetanus. 4th. It explains the facts of the morbid anatomy of the disease. 5th. It guides the treatment of the disease, and is proved by its success.

1st. Three cases are cited to prove the first proposition. Erichsen and other eminent surgeons who have reported cases are quoted as agreeing in this as the starting-point of the disease in "traumatic" cases; and, on the principle that like effects from like causes arise, this cause may be safely extended to all "traumatic" cases.

2d. The great bulk of "idiopathic" cases are, in point of fact, either puerperal, menstrual, or the result of worms. The association of tetanus with worms is so common at Madras that santonin is a stock remedy in idiopathic tetanus. The records of the Women and Children's Hospital at Madras show that all idiopathic cases, which have been recorded in detail, including uterine and vaginal diseases, are either puerperal, menstrual, or the result of worms. Out of 224 cases of tetanus treated at that hospital, 111 were in males, and 113 in females; showing that menstrual and puerperal predisposing causes in the one sex about compensate for the greater liability of the other to mechanical injury. In examination of the gut in cases the result of worms, chronic inflammation, ulceration, worm-burrowing, and other signs of considerable local irritation have been found; in puerperal and menstrual cases, on examination of the utero-vaginal tract, congestion, ulceration, clots, and other signs of local irritation. To deny peripheral nerve-irritation in these cases would be to deny that the parts concerned have nerves. It follows that in a large class, the greater part of idiopathic cases, peripheral nerve-irritation is at work, and, if, as has been proved, peripheral nerve-irritation at the surface causes tetanus, it is highly probable that it acts in the same way in the interior of the body, where the possible sources of nerve-irritation are many and varied: parasites, ulcers, morbid growths, etc., diseases of the lungs, liver, bladder, and other organs.

3d. The symptoms of tetanus are those of constant irritation of the excito-motor system, with great exaltation of the reflex function of the medulla and cord. The muscular spasms are excited by the slightest stimulus to the peripheral nerves. There is often no fever, no constitutional disturbance of any kind. The pathology of tetanus would seem to be: 1st. Continual irritation of the peripheral extremity of a nerve or nervus nervorum through injury or disease of some sort. 2d. Continued irritation of the medulla, with tonic reflex spasm, risus sardonicus, and trismus. 3d. The unbroken cycle of continued irritation leads to morbid molecular changes, with violent disturbance of the reflex function and paroxysmal tetanus, on the least excitation, as a current of air. Clinical facts support the idea that the medulla is easily affected.

4th. There are many cases of tetanus on record in which no morbid change of any kind could be detected in the cord post mortem. Others have found marked changes—some in the cord, others in the medulla, others again in the floor of the fourth ventricle; and in traumatic cases inflammatory changes have been found in the peripheral nerves implicated. Under the microscope, parts apparently sound have been shown to have undergone change. We should expect to find post-mortem evidence in some cases of congestion, in others of inflammation and molecular disintegration; but we could not, from the nature of the disease, expect to find such changes always, and this is exactly what happens. In the first stage of the disease, that of continued nerve-irritation reacting upon the medulla and producing tonic spasm, up to a certain point there is no morbid change, and consequently there would be no evidence of disease. At this point division of the afferent nerve, by cutting off the source of irritation, arrests the symptoms. Afterward continued irritation, exciting the reflex function to an inordinate degree, causes hyperæmia, with molecular changes, and frequently inflammation.

5th. Three cases were cited under the first proposition, in two of which section of the nerve, and in one amputation, cured the disease. This treatment by the knife is efficient only up to a certain point; when molecular changes have taken place in the medulla it is useless. Nerve stretching and traction on the cord may prove of use; not by stopping the current of peripheral nerve-irritation, but by action on the molecules of the spinal marrow, or as a revulsive. If this view is correct, it should act more or less favorably in all cases, according as the afferent nerve implicated entered low down or high up the cord. This test was tried by the author in a puerperal case. The right sciatic nerve was stretched with a tension of ten pounds; there were no spasms after the operation, and the patient ultimately recovered under the influence of chloral. In another case, resulting from piercing the cartilage of the ear, it failed. It would have been better to stretch the cervical plexus instead of the sciatic nerve. As regards constitutional treatment, the drugs most used are those which are known to diminish the reflex irritability of the cord, such as chloral, atropia, Calabar bean, bromide of potassium, chloroform, alcohol, opium, and the like. These drugs have justified their use in this disease. These, and other measures, all testify to the universal opinion, acted upon, if not avowed, that tetanus is a disturbance-disease of the reflex function of the cord.

3. Dr. Carmichael says, concerning his cases of *lesion of the temporo-sphenoidal lobe of the brain:* "The portions of brain destroyed in the cases narrated are credited with being the great centers of special sensation, more especially of hearing; yet, on ordinary tests these functions were not impaired. To account for absence of loss of special sense in such cases as these, we must either abandon the idea of localization in brain-disease, or explain the clinical facts by the bilateral representation of function in the hemispheres." Case I. was in a boy of fifteen years. On post-mortem examination the posterior three fourths of the right temporo-sphenoidal lobe of the brain was converted into a large diphtheritic-looking abscess. Case II. was in a boy of nine years. The post-mortem examination revealed a gliomatous sarcoma involving the whole temporo-sphenoidal lobe of the left side, the chief seat of the lesion being the middle third of the second temporal convolution.

8. The special symptoms of *acute lesions of the pons Varolii* are briefly epitomized by Dr. Gowers, and many of these symptoms illustrated by the following examples of diseases of that center: Case I. Embolism of the basilar artery; general paralysis; myosis; hyperpyrexia. Case II. Hæmorrhage into the pons Varolii; oculo-plegia; respiratory disturbance; convulsions in the legs; hyperpyrexia; death within an hour. Case III. Senile softening of the pons Varolii; hemiplegia; subsequently opposed facial palsy; diplegic spasm; glycosuria.

10. Three of Dr. Goode's cases of *thoracentesis* were for empyema in children. In two of these a permanent opening was made after aspiration. They made perfect recoveries. In the third, the establishment of a permanent opening after aspiration was deferred, and the child died. In the remaining two patients, adults, the effusion was serous. From one, aged thirty-five, sixty-four ounces were withdrawn. The effusion returned on the eighth day, and he died on the twelfth, while being raised in bed. At the post-mortem there were tubercular deposits in both lungs, and small cavities in the right. The heart presented nothing unusual. The fifth case was that of a young man, aged twenty. Three pints were withdrawn. Convalescence was rapid.

14. In summing up, Dr. Hamilton remarks that "the following seem to be the chief—I will not say the exclusive—methods of *fibrous-tissue formation in cirrhosis of the liver*:" (a.) The liver-cells are one of the main sources of the fibrous tissue developed in the organ. (b.) The first visible change in their transformation is the enlargement of the nucleus and the development of a nucleolus and an intra-nuclear plexus. The enlarged nucleus then divides, and this is almost simultaneously followed by transverse fission of the whole cell. (c.) Two smaller cells then arise, each having a nucleus, and these nuclei soon grow to as large a size as that of the cell from which they sprung. (d.) The periplast, however, does not increase in size, *pari passu*, but at each successive division becomes smaller and smaller, until finally nothing but a free nucleus remains. (e.) This free nucleus now enters upon a new existence. It becomes oval, and from its border a fresh periplast is generated, which assumes a fusiform shape. (f.) The fusiform or spindle-shaped periplast now splits into a number of fibrils, and becomes more elongated and tapering at the extremities. The ultimate result is the formation of a bundle of white fibrous tissue out of these fibrils, the nucleus remaining on the surface as the nucleus of the bundle. These appearances are not met with in every instance of cirrhosis of the liver. It is only where an exacerbation of the disease has occurred that this active proliferation and organization can be observed. In most cases the organ is in a quiescent state at the time of death, and then the liver-cells exhibit appearances of atrophy from the pressure of the fibrous tissue already formed.

15. Dr. Osler remarks that *tumors containing striped muscular fibers* are oncological curiosities. Tumors of this nature in the kidney have been recorded by Eberth, Cohnheim, Marchand, Landsberger, Kocher and Langhans, and Huber. All occurred in children from seven to thirty-nine months old. Case I.—A boy, aged nineteen months, who had been a healthy child, was vaccinated in the morning, after which he appeared in his usual health. At 2 P. M. he began to vomit and to have severe gastro-intestinal symptoms, which yielded to treatment, but the child sank and died at two o'clock the next morning. At the autopsy a striated myosarcoma of the left kidney was found. Case II.—A girl, aged three and a quarter years, had been ailing with gastric and intestinal symptoms for six weeks. She had occasional vomiting and obstinate constipation; there was slight pain in the abdomen, and on inspiration a tumor was discovered in the left hypochondrium, just below the cartilage of the eighth rib. She had not been confined to bed. On getting up one morning, and walking, she was suddenly seized with a "choking fit," and died in a few moments. At the autopsy the tricuspid orifice and the pulmonary artery were found blocked with sarcomatous thrombi dislodged from the renal vein. The case was one of striated myosarcoma of the left kidney.

17. "Hæmoptysis, in its most restricted meaning, is," says Dr. Shepherd, "by no means always to be suspected as indicative of *phthisis*. . . . Among the various fallacies to which the diagnosis of phthisis is open, none seems to me to be so common as that of confounding it with bronchitis." Cases are cited in which the diagnosis of phthisis was made during life, and yet the autopsies showed them to be chronic bronchitis with dilated bronchi. "We have nothing whereon to make a certain diagnosis. The more general the bronchitis, especially if it affect both lungs, the greater the hope of an exemption from phthisis. The tendency of bronchitis is to enlarge, that of phthisis to contract the chest; and this contraction or enlargement is, in the main, antero-posterior." [Would not the thermometer be of some aid in doubtful cases?]

26. Dr. Smith gives the details of a case of *gangrene of the lung treated by incision.* He remarks: "The prognosis of gangrene of the lung is exceedingly grave, so grave as to justify anything which affords the slightest hope of obtaining relief. . . . To tap through solid lung and adherent pleura does not seem so very serious a matter, and, if a gangrenous cavity is advancing toward the surface of the lung surrounded by so feeble a zone of inflammation as not to set up adhesion of the pleural surfaces, tapping would seem only to hasten by a little what would inevitably soon occur of itself, with this compensatory advantage, that, instead of a closed empyema, an open one would result; the incision which caused the empyema being also the most essential thing for its relief. . . . The following will be found a tentative proposition: that when (1) the opening through the bronchi seems to be inefficient as an exit for the fluid, or the passage of the gangrenous ichor seems to be setting up irritation in the bronchial mucous membrane, (2) the patient appearing to sink rather than to rally, and (3) auscultatory evidence of a cavity can be heard, an incision with a view to drainage is justifiable."

30. The use of *bichloride of mercury in dysentery and diarrhœa*, in somewhat minute doses, has been tested by Dr. Reed. "It has been found particularly valuable in those forms of chronic diarrhœa characterized by dysenteric symptoms, such as the presence of mucus or blood in the stools, with or without tenesmus." The notes of four cases thus treated are given.

34. Dr. Bartholow's case was one of *ambulant typhoid.* The patient was put to bed, and when the temperature rose he was given a full dose of quinine—twenty grains. He received the so-called specific treatment of Lugol's solution, five drops three times a day, well diluted; and upon this he was doing well. Dr. Bartholow considers "this method certainly an advance in the treatment of typhoid fever. It is not termed specific on account of any supposed influence it has directly on the typhoid fever, but from the power of the iodine to destroy the germs of the disease in the discharges of the intestinal canal, on account of its well-known antiseptic properties."

49. Dr. Porcher's case of *paracentesis of the pericardium* was that of a female, aged seventy, with anasarca, increased area of cardiac dullness, feeble heart-sounds and pulse, and violent oppression threatening instant death. "The needle of the hypodermic syringe was entered over the center of the area of cardiac dullness, about half an inch to the right of and a little above the nipple," and two drachms of fluid were drawn from the pericardial sac. The needle was inserted to the depth of about two inches. The puncture was repeated the following day, but without success, "some drops of blood only appearing in the tube of the instrument." A third introduction was also unsuccessful. The patient was relieved by the removal of the small amount of fluid. "The relief is accounted for by the supposition that internal drainage into the cavity of the thorax occurs through the wound made by the needle, with possibly subsequent absorption. This may explain the failure of the second and third efforts."

51. Dr. Ralfe, in his paper on the *treatment of chronic dysentery*, gives thirty-eight cases. Sixteen patients were discharged cured, twenty were relieved, and in one there was no improvement. *Castor-oil only* was administered in fourteen cases. Three of these patients were discharged cured, ten relieved, and one made no improvement. The average duration of treatment under this remedy was—In cases cured, 37·6 days; in cases relieved, 42·4 days; and the patient that made no improvement was discharged at his own request at the end of ten days. The castor-oil was given on stated days, at least twice in the week. *Bismuth mixture* was prescribed at some period during treatment, in addition to the castor-oil, in nine cases. Five of these patients were discharged cured, and four relieved. The average duration of treatment in those cured was 38·8 days, and in those relieved 20·7 days. A *mixture of hæmatoxylon*, in addition to the castor-oil treatment, was employed in eleven cases. Seven of the patients were cured, and four were relieved. The average duration of treatment in the cases cured was 23·1 days, and in the cases relieved 47·5 days. In four cases *capsules of turpentine* were used as a supplement to the oil; two of these patients were discharged cured, and two were relieved. The average duration of treatment in those cured was 59·3 days. All cases complicated with constitutional disturbances—syphilis, ague, anæmia, scurvy, etc.—call for appropriate treatment, in addition to that required for the dysentery. Rest and strict attention to diet are essential to the cure of this disease. While tenesmus and straining are present, and the stools contain blood and slime, confinement to bed and the horizontal posture are imperative. When improvement takes place in this respect, the patient may sit up for a few hours daily, but he must not be allowed to go out-of-doors unless the weather is dry and warm. Nourishment should be given in small quantities at a time: beef-tea, fluid extract of meat, or juice of raw beef; subsequently boiled fish or minced meat (not cooked). Farinaceous food should be given in very small quantity, if at all; and the same is true of milk, on account of its liability to cause flatulence and the formation of lactic acid. Coffee and alcohol are injurious. Fresh fruits, in small quantities, and lime juice are beneficial.

54. *Veratrum viride in pneumonia* "is hurtful," says Dr. McFarland, "because it weakens the *vis a tergo*, and thereby to maintain a free circulation through the inflamed part and its neighborhood is rendered more difficult, and prompt resolution is almost an impossible result; but the hurt to be expected is hepatization, or from parenchymatous inflammation. It being undoubted good practice in this inflammation, as in any other, to maintain an equable flow of blood through the part—the lung having by disease, as well as by the effect of the drug, lost much of its elasticity, and then, added to this, the power of the heart's action being largely decreased, the *vis a tergo* diminished, where are you to look for aid in keeping up a free flow?"

56. Dr. Hibberd's paper closes with the following summary of the leading points: "1*st. Consumption* is a self-limited disease; and, 2*d*, it should, therefore, be managed through its stages as is done with other disorders of its class. 3*d*. Statistics point to the conclusion that rather more than eleven per cent. of consumptives will recover if left to nature entirely. 4*th*. Clinical study leads to the inference that judicious treatment may increase this percentage of recovery. 5*th*. A survey of the popular professional methods of management raises the presumption that they are far from the best. 6*th*. Consumption has no specifics, and demands but little medicine, the only drugs required for their essential and direct action being the alkaloids of cinchona and opium, and perhaps iron. 7*th*. Recognizing the real nature of consumption, the profession should set their faces against the multitudinous remedies prescribed in many text-books, and persistently repudiate the numerous nostrums now so industriously forced on the attention of practitioners by manufacturing chemists and other mercenary persons. 8*th*. Rational simplicity in therapeutics is desirable in all diseases: it is a scientific and humane necessity in consumption." The author adopts, and adds to his own, the following four of the ten propositions of Professor Peter: "6. Galloping phthisis and acute phthisis are perfectly uncontrollable by any of the therapeutic measures at our command. 8. Tubercle, indeed—and this is no paradox—shows a natural tendency to cure: 1st. By softening and expulsion, a process which does some damage to the lung by producing excavation, but which may safely end in cicatrization; 2d, by fibroid degeneration of the affected part; 3d, by calcification. 9. It is stated above that tubercle may be cured; it would be nearer the truth to say that its evolution is arrested; that it ceases to exist; that it dies. 10. The grand problem, therefore, in the treatment of tuberculosis is, *to enable the patient to outlive his tubercles*, a problem which, in a great many cases, is certainly not insoluble."

79. Dr. Glaister makes a plea for the more general use of the *actual cautery in spinal affections.* Three cases are related. The author recommends its application "as a more usual procedure, when other milder measures have failed after a fair trial, instead of prolonging a line of treatment which is generally conducive to no good effect, keeps the patient suffering, and requires its use in the end."

80. Dr. Da Costa's patient with *aphasia* was a man who was able to say only "yes" and "no." The aim in the treatment was partly to restore the power of speech, and partly to improve the nutrition of the brain. The first indication was fulfilled by the use of phosphorus and cod-liver oil, and by the occasional administration of iron. Under these, the patient gained flesh and color, and his right-sided hemiplegia largely disappeared, only a slight feebleness in the grasp of the hand remaining. For the purpose of restoring the power of speech, he was made to repeat words until some remained in his memory. Afterward some words began to come back to him which had not previously been suggested to him. Electricity was applied to the tongue in the hope of stimulating the center of speech, and this seemed to be of considerable benefit. The success of treatment had been very gratifying, the patient being able to walk, to move his hands and legs in every direction, and to speak about his business when questioned.

115. Dr. McBride states that in many cases of *uræmia* a *high temperature* is observed. It is probable that in the following a *low* temperature will be found: 1. In cases of renal disease secondary to disease of the urinary tract, especially when accompanied by complete suppression of urine; 2. In uræmia occurring in the aged; 3. In uræmia arising in the course of very chronic renal disease, in which there may be vomiting, diarrhœa, or hæmorrhages; 4. In uræmia in the cancerous cachexia, and, possibly, in marasmic conditions. The temperature should always be taken in the rectum, and the conditions which are known to affect temperature, such as vomiting, diarrhœa, hæmorrhage, and intercurrent inflammations, should be noted when the observations are made.

124. Dr. Meacher cites five or six cases of *pneumonia treated with ergot*, and gives the history of the last case as an illustration of his experience. "At the outset the patient, a lad of fifteen, had all the symptoms of a bad case of inflammation of the lungs, but it seemed to be cut short by the ergot." To be of benefit the remedy must be given before hepatization has taken place, before the exudation occurs through the walls of the capillaries.

125. Dr. Park gives the history of an aggravated case of *exophthalmic goître*, in which morphia hypodermically, to the extent of from one to two grains each time, acted not only as a palliative, but remedially upon the tumultuous cardiac action.

QUARTERLY REPORT ON MATERIA MEDICA, THERAPEUTICS, AND TOXICOLOGY.

No. I.

By GASPAR GRISWOLD, M. D.,

Materia Medica and Therapeutics.

1. Black, J. R.—French and American quinine. "Cincinnati Lancet and Clinic," Jan. 24, 1880.
2. Westmoreland, J. G.—Carbolic acid; its actions and therapeutic uses. "Atlanta Med. and Surg. Jour.," Jan., 1880.
3. Bourgeois.—De l'emploi du permanganate de potasse en thérapeutique, en particulier dans le traitement de la blennorrhagie. "Bull. Gén. de Thérap.," Jan. 15, 1880.
4. Villa-Franca.—Note sur les plantes utiles du Brésil. "Bull. Gén. de Thérap.," Jan. 14, 1880.
5. Harnack, E.—Ueber das karlsbader Sprudelsalz. "Berlin. klin. Wochenschr.," Jan. 5, 1880.
6. Thomson, W. H.—The therapeutical action of cold. A lecture. "Med. Record," Jan. 3, 1880.
7. Clark, A.—Aconite and opium antidotal (?). "Med. Record," Jan. 3, 1880.
8. Reed, B.—A plea for polypharmacy—quinine combinations and sea-air for malaria. "Med. and Surg. Reporter," Jan. 10, 1880.
9. Hickman, J. W.—On some points in the therapy of chloral hydrate. "Med. Record," Jan. 10, 1880.
10. Simmons, D. B.—Chloral hydrate and camphor in toxic and therapeutic doses. "Am. Jour. Med. Sci.," Jan., 1880.
11. Reichert, E. T.—The physiological action of apomorphiæ hydrochloras. "Phila. Med. Times," Jan. 3, 1880.
12. Mackenzie, G. H.—Is aconite a diuretic? "Practitioner," Jan., 1880.
13. Martindale, W.—Nitroglycerine in pharmacy. "Practitioner," Jan., 1880.
14. Gamgee, S.—A clinical note on pressure. "Practitioner," Jan., 1880.
15. Levis, R. J.—The new anæsthetic—the bromide of ethyl. "Phila. Med. Times," Jan. 17, 1880.
16. Beard, G. M.—The dosage of electricity. "Jour. of Nervous and Mental Disease," Jan., 1880.
17. Sowers, G. F.—Ethyl bromide, or hydrobromic ether.—Cases operated on under its influence. "Med. and Surg. Reporter," Jan. 31, 1880.
18. Cerna, D.—A note on the chemistry of phenol and the effects of the sulpho-carbolates. "Phila. Med. Times," Jan. 31, 1880.
19. Green, T.—The therapeutic value of the alkaline chlorates. "Med. and Surg. Reporter," Jan. 17, 1880.
20. Moyes, J.—Observations on the subcutaneous method of administering medicines. "Glasgow Med. Jour.," Feb., 1880.
21. Reed, R. H.—Nitrite of amyl—its history, physiological action, and therapeutics. "Detroit Lancet," Feb., 1880.
22. Clevenger, S. V.—Action of mercury. "Chicago Med. Gaz.," Feb. 20, 1880.
23. Tucker, J. I.—Observations and practical suggestions concerning five remedies of vegetable origin which are not in general use. "Chicago Med. Gaz.," Feb. 5, 1880.

24. Caspari.—Zur therapeutischen Verwerthung des phosphorsauren Kalkes. "Deutsche med. Wochenschr.," Feb. 14, 1880.
25. Dubuisson, P.—Du choix du médicament et de son dosage. "La Tribune Médicale," Feb. 15, 1880.
26. Laborde, J. V.—Du rôle de l'expérimentation dans la recherche et la détermination des succédanés, en thérapeutique. Action physiologique et toxique comparée de la quinine, de la cinchonine, et de la cinchonidine (alcaloïdes du quinquina). "Tribune Méd.," Feb. 12, 1880.
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28. Jungk, C.—Fungi and their educts—ergot and sclerotic acid. "Therap. Gaz.," Feb. 15, 1880.
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31. Perry, A. W.—Misuse of the iron preparations—their effect on the digestive process. "San Francisco Western Lancet," Feb., 1880.
32. Lockridge, J. E.—Atropia versus morphia. "Am. Practitioner," March, 1880.
33. Spalding, V. M.—Commercial distinctions of the narcotic leaves. "Therapeutic Gaz.," March, 1880.
34. Cooper, G. F.—Veratrum viride—green or American hellebore—its physiological and therapeutic effects considered. "Trans. Amer. Med. Ass.," vol., 30, 1879.
35. Ciaramelli, C.—Le iniezione ipodermiche di nitrato di pilocarpina. "Giorn. Internaz. delle Sci. Med.," N. S., anno I., fasc. 10, 11, 12.
36. Ringer, S.—On tonga: a remedy for neuralgia used by the natives of the Fiji Islands. "Lancet," March 6, 1880.
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45. Scott, T. J.—Correlation of nerve and medicinal action. "Med. and Surg. Reporter," Feb. 28, 1880.
46. Diehl, L.—Albuminate of iron. "Am. Jour. Pharm.," April, 1880.
47. Beyer, H. G.—A contribution to the knowledge of the physiological properties of salicylic acid. "Arch. Med.," April, 1880.
48. Hammond, W. A.—The effects of alcohol upon the nervous system. "Neurol. Contrib.," vol. i., No. 2, 1880.
49. Clevenger, S. V.—Mechanical therapeutics; chemistry and toxicology of mercury. "Chicago Med. Jour. and Exam.," April, 1880.

50. Gatti, F.—Intorno ad un caso di temporanea e completa amaurosi da ingestione di salicilato di soda. "Gaz. degli Ospitali," Feb. 29, 1880.

51. Ott, I.—Bromide of ethyl—its physiological action. "Detroit Lancet," April, 1880.

10. Dr. Simmons first describes prolonged narcotism of several days' duration following the accidental ingestion of two drachms of a mixture containing equal parts of *camphor and chloral hydrate*, which had been prescribed as a local application for neuralgia. The effects following this toxic dose suggested a therapeutic use of the mixture. The first trial was made in a case of periodical mania in the lunatic department of the hospital. The patient, on whom the ordinary routine of narcotics, including chloral, morphia, hyoscyamia, etc., had been frequently tried to no purpose, experienced a quiet and refreshing sleep of two hours after taking twenty drops of the camphor and chloral hydrate. On waking, he was given fifteen drops more, when he again fell asleep, resting quietly for several hours, and awaking in the condition usual to him in the intervals of his paroxysms. On subsequent occasions the remedy was used in the same case, always with the same happy result of cutting short a period of several days of violent mania. In other cases of mania, delirium tremens, etc., the author has found the mixture in question capable of accomplishing what other sedatives seemed powerless to do. He recommends it as a happy combination which will effect, in doses of twenty drops, what is altogether beyond the reach of twenty grains of either camphor or chloral hydrate, administered alone.

11. Dr. Reichert, from experiments with reference to the *physiological action of apomorphiæ hydrochloras*, reaches the following conclusions: 1. When locally applied, it acts as a depressant upon all the highly organized tissues of the body. 2. Upon the cerebrum it is primarily a stimulant, and secondarily a depressant. 3. The sensory nerves are paralyzed, the paralysis being progressive from the periphery to the center. 4. The motor nerves are primarily stimulated, secondarily paralyzed. 5. The loss of voluntary motion is due to narcotism. 6. The loss of reflex activity is due to a paralysis of the sensory nerves and a stimulation of the inhibitory reflex centers of the spinal cord. 7. The convulsions are principally spinal, and are due to a paralysis of the inhibitory reflex centers of the spinal cord. 8. The motor conducting tracts are paralyzed before the motor nerves succumb. 9. The hyperæsthetic condition which is sometimes observed to exist after total abolition of reflex activity is due to a depression of the reflex centers of the cord. 10. The increase of the pulse-rate is due to a stimulation of the accelerator fibers of the vagus ; and the decrease, to a depression of the heart-muscle. 11. The increase of respiration in dogs and cats is due to a stimulation of the peripheral vagi nerves, and in rabbits to a combined stimulation of the vagi centers. 12. The primary and secondary fall of blood-pressure is due to a direct depressant action on the heart, and the temporary rise to a stimulation of the vaso-motor centers in the medulla. 13. The temperature is primarily increased, secondarily diminished. 14. Both the voluntary and involuntary muscular systems are depressed and finally paralyzed. 15. It is a cardiac depressant. 16. The secretion of the salivary glands is markedly increased. 17. The vomiting is due to a stimulation of the vomiting centers in the medulla, and the drug acts primarily as a stimulant and secondarily as a depressant to those centers. 18. Absorption takes place very rapidly through all parts of the body. 19. It is probably eliminated in all the secretions, and the elimination takes place rapidly. 20. The most characteristic test is the solution of gold chloride, which gives a purple precipitate; this may be distinguished from the reaction with a tin salt by the precipitate changing to a brown when it is boiled. 21. The dilatation of the pupil is due to a paralysis of the oculo-motor centers. Lastly there are no characteristic lesions found after death.

18. After an elaborate series of experiments on the *effects of the sulpho-carbolates*, Dr. Cerna concludes: 1. The sulpho-carbolates possess toxical properties for cold-blooded animals. 2. In warm-blooded animals these salts are innocuous. 3. Baumann's assertion of the soluble sulphates acting as chemical antidotes in poisoning with phenic acid can not, so far, be accepted as true.

20. Dr. Moyes reports cases illustrative of special benefit derived from the *subcutaneous administration* of Fowler's solution. The first was a case of chronic pemphigus, which yielded but slowly to five minims of Fowler's solution three times a day, administered by the mouth. This was true of four attacks of the disease, occurring during four years, and each lasting about three months. A fifth attack was treated with hypodermic injections of Fowler's solution, and recovery took place in five weeks. In the former attacks the total amount of Fowler's solution taken averaged f ℥ ij; in the last only f ʒ iijss were necessary to effect a cure. The method of administration was as follows: one-sixth grain of morphia was first injected in the usual way, and the needle was left stationary while the syringe itself was removed. Three to six minims of Fowler's solution, diluted with an equal quantity of water, were then drawn into the syringe, the latter was again attached to the needle, and the second injection was made. Immediately afterward a piece of ice was laid upon the part, and kept there for about half an hour by the patient himself, with the object of preventing inflammation. One injection was given daily. In this case no abscesses were produced. In a bad case of psoriasis, in which Fowler's solution had been for some weeks administered by the mouth, in considerable doses, with little benefit, improvement and cure soon followed hypodermic injections of five-minim doses, daily, of the same remedy. In this case some annoyance was caused by the development, at the point of injection, of two small abscesses. Professor McCall Anderson is reported to be making trial of the liquor sodii arseniatis, with the probability of its proving non-irritating, and not requiring the precaution of cold applications and previous morphine injection.

22. Dr. Clevenger advances an ingenious hypothesis to explain the *action of mercury*. Taking blue mass as an example, he argues that the metallic mercury, divided into minute globules, $\frac{1}{6000}$ of an inch in diameter and smaller, acts mechanically, entering the circulation unchanged, traversing the capillaries and glandular tubules, its effect being analogous to that produced by "dropping cannon balls into a large pipe." By an elaboration of this novel hypothesis he explains the so-called alterative action of mercurial preparations upon glandular structures, obstructions to the escape of secretions being in this way removed. He describes experiments upon frogs in which, after the administration of five grains of blue mass, he has been able, with a lens of high power, to see the globules of mercury in their passage through the capillaries. When, in the osseous structures, globules accumulate in such numbers as to shut off the blood from contact with the tissue-elements, caries or necrosis results. He finds metallic mercury "in every conceivable tissue and fluid in the body," and explains its efficacy in syphilis by the supposition that it mechanically breaks up collections of the poison, preventing such "centralization" of it as he deems necessary to the development of ulcerations, etc. The virus is, as it were, "chased" out of the blood by the globules of mercury meandering through it. He believes that calomel is converted first into the black oxide and then into metallic mercury, owing its efficacy to this last process. The bichloride, by a similar train of reasoning, becomes the yellow oxide, and is afterward transformed into very minute globules of metallic mercury. An extension of this line of argument explains in like manner the actions of the other preparations.

24. On the *action of the phosphate of lime* Dr. Caspari remarks that it has a peculiar effect in improving the conditions of the capillary circulation; that this effect is not due to the phosphoric acid contained in it; that preparations of iron, given in connection with the phosphate of lime, produce effects not obtainable by those preparations given alone; and that combinations of phosphorus and iron will not produce effects which may be derived from iron and phosphate of lime given together. The manner of operation of phosphate of lime he leaves for physiological chemistry to elucidate. He considers the phosphate of lime specially indicated in conditions characterized by hæmorrhages due to the breaking down of capillary vessels. In support of this view he adduces cases of marked improvement under this treatment. In a case of acute parenchymatous nephritis, with more than the usual amount of hæmaturia, great benefit followed the daily administration of two drachms of the phosphate of lime. The hæmaturia was controlled, the blood finally disappearing from the urine altogether, and the nephritis rapidly progressing toward recovery. The author believes that the amelioration of the patient's condition was due to the influence of the phosphate of lime in improving the tone of the renal capillaries. A case of cystitis, with decomposing urine and cystorrhagia, was likewise favorably affected by the treatment. A case of menorrhagia was cured in the same way. The author has seen the best effects in chlorosis from a combination of iron preparations with the phosphate of lime; he has also seen the blood-streaked expectoration of catarrhal phthisis with cavities diminish conspicuously under a continued administration of the phosphate of lime.

25. Dr. Dubuisson, with reference to the *choice of medicines and their dosage*, merely reiterates well-known facts in connection with the administration of medicines by the mouth, by the rectum, by hypodermic injection, etc. He comments especially on the dangers of local applications where abrasions may permit the too rapid absorption of the drug employed.

26. Dr. Laborde calls attention to a dangerous tendency on the part of the profession to use *different substances derived from plants of the same family* as synergistic, and on occasion admitting of substitution for each other, without assuring themselves by experimentation that their view is correct. He reminds his readers of the differences between the actions of the various alkaloids of opium, as demonstrated by Claude Bernard, and so introduces experiments of his own with reference to quinia, cinchonine, and cinchonidine. First stating the freedom with which physicians substitute one of these substances for another in practice, he goes on to show experimentally important differences in their actions. Into three dogs of the same size and weight he injects hypodermically 1 gm. of sulphate of quinine, ·75 gm. of sulphate of cinchonine, and ·75 gm. of sulphate of cinchonidine, respectively. The first is stupid, sensibility being obtunded, and anæsthesia developing after a few moments; the two others experience a true *status epilepticus*, convulsions succeeding each other with but short intermissions. The dog to which cinchonine was administered is more powerfully convulsed than the one to which the cinchonidine was given; the latter suffers from tremors resembling those of *paralysis agitans*. These experiments seem to show that even in large doses quinine is rarely, if ever, convulsant, while this is the rule with cinchonine and cinchonidine. Therapeutical deductions and applications remain an open question.

28. Dr. Jungk closes a short discussion of fungi in general by allusions to sources of uncertainty in *preparations of ergot*, and the desirability of a *liquor ergotæ purificatus* of more constant strength. He states that Dr. Planat, of Nice, praises highly the subcutaneous use of sclerotic acid (obtained from ergot), claiming for it the virtues of ergot without the tendency to abscess at the point of injection.

29. Dr. Henning highly recommends *hydrangea arborescens* as a diuretic and tonic to the genito-urinary mucous membrane. He gives the fluid extract in doses of from a half to one drachm, generally in combination with other suitable remedies. He claims for it the power to diminish and even stop the excretion of albumen in Bright's disease; he also uses it with marked advantage in hæmaturia, irritable bladder and urethra, chronic gleet, etc.

30. Dr. Laborde, in experiments upon the *physiological action of salicylate of soda*, arrives at the following conclusions: 1. That the salicylate of soda has remarkable analgesic properties. 2. That this property of the drug depends upon its obtunding effect upon the brain, and not upon a paralysis of the sensory conductors. 3. That its control of vaso-motor phenomena is insignificant. 4. That its action in producing analgesia, deafness, stupor, and possibly delirium is similar to that of a dose of quinine one fifth as large. He considers that its efficacy in acute articular rheumatism is mainly due to its analgesic effect; a most extraordinary conclusion, truly, in view of the rapidity with which the febrile phenomena of that disease abate during the administration of the drug in question.

31. Dr. Perry, taking as his subject the *misuse of iron preparations, and their effect upon the digestive process*, supports his views with the following experiments. Two test-tubes containing artificial gastric juice and albumen; into one of them is poured one drachm of elixir of iron and quinia, at the end of four hours digestion has been completed in the tube containing no iron; the albumen remains unaffected in the tube containing the medicine. At the end of ten hours the albumen in the latter is still undigested, showing the effect of the iron preparation in suspending digestion. He quotes cases in which he considers indigestion to have been due to the presence of a preparation of iron in the stomach; he advises that such medicines be administered one hour before, or four hours after meals.

35. Dr. Ciaramelli, in the matter of the *hypodermic injection of pilocarpin nitrate*, merely eulogizes its advantages over the administration of jaborandi by the mouth. He also recapitulates superficially some of its best known uses.

36. Dr. Ringer, in a short article on *tonga*, states the following points. It is a remedy, probably a combination of different barks, in use among the Fiji islanders. A fluid extract, in drachm-doses three times a day, cured promptly six cases of severe neuralgia, improved a seventh, and failed in the eighth, only because, as Dr. Ringer believes, the preparation had become inert. These cures were produced without toxic symptoms in any case. Sensation, the secretions of the mouth, and the pupil were unaffected; large doses (℥ ss) produced slight drowsiness in one patient.

38. Dr. Burkmann, in discussing the *action of carbolic acid*, describes the following case: a patient, addicted to the constant hypodermic use of morphia, on several occasions experienced the following symptoms. After an injection causing more than the usual hæmorrhage, probably from the needle entering a vein, there was some faintness, with a tendency to syncope; five or six hours afterward a marked chill occurred, followed by fever and sweating. This chain of phenomena had occurred so often that the patient was able to predict the chill, fever, and sweat from the sensations immediately following the injection. Dr. Burkmann succeeded in preventing the chill and its attending fever and sweat by an hypodermic injection of one drachm of a four per cent. solution of carbolic acid, twenty-five minutes after the injection of the morphia. The author does not explain the action of the carbolic acid in controlling the paroxysm, but suggests its possible efficiency in other chills, such as those of pyæmia, etc.

44. Dr. Lucas terminates a discussion of *tetanus* with a suggestion that *cannabis indica* be administered by inhalation, from ten to twenty grains of the leaves, mixed with tobacco or not, being smoked every little while, as often as spasms recur. For this treatment he claims the following advantages: 1. The spasms are cut short. 2. They reappear at gradually longer and longer intervals. 3. They become not only less frequent, but at the same time less severe. This saves the patient from exhaustion, and tends, by prolonging life, to eventually save it. Opium may also be combined with the hemp.

47. Dr. Beyer, comparing the *physiological properties of salicylic acid* with those of quinine, arrives at the following conclusions. 1. The action upon the pulse is the same, in proportionate doses (that of salicylic acid being six times that of quinine); small doses increase both the frequency and the force, large doses have the opposite effect. 2. In regard to temperature, the following difference is remarked: Quinine in any dose, large or small, always lowers temperature; salicylic acid in small doses raises the temperature from 0·4° to 0·6° F.; large doses are required to depress the temperature. 3. Considerable doses of quinia diminish the nitrogenized constituents of the urine; these are increased by proportionate doses of salicylic acid.

51. Dr. Ott, after an elaborate series of experiments on the *physiological action of bromide of ethyl*, decides that its anæsthetic effect is produced by a "chemical action upon the gray matter of the nervous system." Comparing it with other anæsthetics, he arrives at the following conclusions: 1. Chloroform increases the frequency of the pulse, then slows it by cardio-inhibitory stimulation; ether hastens the pulse; nitrous oxide also accelerates it by paralysis of the cardio-inhibitory apparatus, while bromide of ethyl increases the pulse-rate by an action upon the heart itself. 2. Chloroform reduces blood-pressure by paralysis of the main vaso-motor center and cardiac debility; ether greatly increases it, and keeps it increased; and nitrous oxide also increases it. Bromide of ethyl increases it by a stimulation of either the spinal or the peripheral vaso-motor system. 3. Chloroform increases and then decreases the frequency of respiration; nitrous oxide reduces it. Bromide of ethyl decreases it by a central action.

TOXICOLOGY.

1. Nivison, N.—The physiology of opium poisoning. "Med. Gaz.," Feb. 21, 1880.
2. Leale, C. A.—Subcarbonate of iron as an antidote in arsenical poisoning; with four illustrative cases of recovery. "Am. Jour. Med. Sci.," Jan., 1880.
3. Prentiss, D. W.—Cases of poisoning—one by atropia, one by opium, and one by quinine. "Phila. Med. Times," Jan. 3, 1880.
4. Garlick, G.—Cases of arsenical poisoning, resulting from a red wall-paper. "Lancet," Jan. 3, 1880.
5. Pike, T.—Aconite poisoning. "Lancet," Jan. 3, 1880.
6. Obersteiner, H.—Chronic morphinism. "Brain," Jan., 1880.
7. Hewetson, H. B.—A case of poisoning by drinking "camphorated oil." "Lancet," Jan. 17, 1880.
8. Mawer, J. B.—Poisoning by digitalis. "Lancet," Jan. 31, 1880.
9. Thomas, J. P.—A remarkable case of recovery from opium poisoning

in an infant less than three days old. "Med. and Surg. Reporter," Jan. 31, 1880.

10. Binz, C. — Ueber den arteriellen Druck bei Morphium-Vergiftung. "Deutsch. med. Wochenschr.," March 27, 1880.

11. Cranfill, J. B.—Lobelia inflata as an antidote in animal and insect poisoning; with a case. "Therap. Gaz.," Feb. 15, 1880.

12. Morris, M. A.—Report on arsenical poisoning by means of wall-papers, paints, etc. "Brit. Med. Jour.," Feb. 21, 1880.

13. Voorhies, A. H.—Temporary blindness from quinine. "Trans. Amer. Med. Ass.," vol. 30, 1879.

14. Baginski, A.—Ueber toxische Wirkungen des Kali chloricum. "Arch. für Kinderheilk.," I. B., 3 H., 1880.

15. Laborde.—Les poisons dits musculaires et le sulfocyanure de potassium. "Gaz. Méd. de Paris," Nos. 10, *et seq.*, 1880.

16. Gombault.—Note sur l'état des nerfs périphériques dans l'empoisonnement lent par le plomb chez le cochon d'Inde. "Progr. Méd.," March 6, 1880.

4. Dr. Garlick describes *arsenical poisoning from red wall-paper*, the victims being two children and their mother, all complaining of pain about the eyes and nose, associated with feelings of lassitude and marked dyspeptic symptoms. These indications of disturbing influences at work had been present for a considerable time before the cases came under Dr. Garlick's notice. He at once suspected arsenic, and discovered it in a wall-paper of poor quality, with red stars stamped upon a pale-yellow ground. The arsenic was in the red stars. After the removal of the paper, the pains about the eyes and nose rapidly disappeared, the dyspeptic symptoms abating more gradually. The author warns his readers to suspect other wall-papers than green ones.

5. Dr. Pike describes a case of *aconite poisoning* in which about four drachms of the liniment were swallowed, mixed with half a tumblerful of water, the stomach being empty. There was vomiting, with great pain at the epigastrium; feeble and intermitting pulse, cold extremities, and unconsciousness gradually supervening. There were no convulsions; some muscular weakness was present, with a tendency to rigidity on attempts to perform such acts as carrying a tumbler to the lips. The author at once administered twenty or thirty drops of aqua ammoniæ, which happened to be at hand, in a glass of water. This was followed by free emesis. He then applied hot bottles, and resorted to subcutaneous injections of ether. Four injections, of 15 minims, 15 minims, 20 minims, and 20 minims, respectively, were given at intervals of a few minutes. After the last one, warmth began to return to the extremities, the pulse improving, and the patient experiencing an exhilaration resembling that produced by the inhalation of ether. Recovery was assured within two hours after the ingestion of the poison.

7. Dr. Hewetson describes a case of *poisoning with camphorated oil*, one ounce being taken with the idea that it was castor-oil. A half hour after taking the medicine, the patient, a woman of twenty-five, became delirious, vomiting, and complaining that she felt sick and cold, and that her cheeks tingled very much. The breathing appeared labored, the pulse was 104, firm and even; the extremities did not feel cold to the touch. An emetic of mustard and water was administered, and acted promptly; the vomiting ceased after this. In about four hours from the ingestion of the camphor, consciousness was restored and the patient was comfortable, though weak. No ultimate bad effects resulted.

8. A striking case of *poisoning by digitalis* is reported by Dr. Mawer. A married lady, thirty-four years of age, of fair complexion and nervous temperament, swallowed at a dose fifty-six of Homolle's granules of digitaline, each containing one milligramme of the drug (in all $\frac{87}{100}$ of a grain). The medicine was taken at 3 P. M., and no symptoms developed until three hours afterward, when, at dinner, she suddenly became quite giddy while eating some soup, and experienced an inclination to vomit. She was at once put to bed, and numerous domestic remedies were administered—an emetic, which acted; hot bottles, friction, etc. At 11 P. M. she was first seen by the author. Her pulse was forty-eight to the minute, occasionally intermitting; the respirations were slow, with deep and prolonged inspiration. The face was dusky, the pupils were dilated; she complained of pain in the epigastrium, and vomited at intervals of a few minutes. She was ordered small pieces of ice, and iced infusion of coffee in teaspoonful doses; a teaspoonful of cognac was given her every half hour, and a mixture of syrup of ether and ammonia was administered from time to time. Strict quiet in a recumbent posture was enjoined, sinapisms and hot bottles were continued, and smelling-salts were frequently applied to her nose. The next day her pulse was forty-two, very weak and irregular, and her other symptoms showed no improvement. Vomiting continuing, rectal alimentation was resorted to. During the afternoon of this, the second, day she commenced to improve; her pulse rose to sixty a minute, although still feeble and intermitting, and her extremities became warmed, thus evidencing restoration of normal circulation. During the week following, convalescence was gradually established. The author regrets that his ignorance of the antagonism said to exist between digitaline and saponine prevented him from making a trial of the latter remedy.

9. Dr. Thomas reports a case of *opium poisoning in a child* about sixty hours old. The baby, who is described as weighing nearly eleven pounds, was given by mistake one third of a grain of morphia dissolved in a drachm of spiritus ætheris nitrosi. Dyspnœa, going on to cessation of respiration, soon developed; for forty-eight hours the author employed artificial respiration at intervals, as it was needed. Finally, he had the satisfaction of seeing the little patient recover. No medicines were given.

10. In a conspicuously polemic article, Dr. Binz maintains that the *arterial pressure is lowered in morphine poisoning.* The present communication is a reply to Dr. Witkowski, who, in a previous number of the same journal, had argued against this view, originally advanced by the author.

14. Dr. Baginski calls attention to the *toxic action of chlorate of potash* given in considerable quantities (six hundred grains in twenty-two days) in some cases of diphtheria in children. He considers that the chlorate of potash yields its oxygen in the blood, and that the oxidation thus set up develops destructive changes in the hæmoglobin, converting it into methæmoglobin. Degenerative processes are also set up in the kidney, albumen and casts appearing in the urine. He recommends the local application of the drug in question to the throat, but prefers to use less dangerous remedies internally.

16. Dr. Gombault, as a result of careful experiments upon *gradual lead poisoning in guinea-pigs*, describes, in addition to changes in the gray matter of the nerve centers, a "primary saturnine neuritis" caused by impregnation of the nutritive fluids with lead. Healthy nerve-fibers often intervene between the affected portions and the centers, proving that the process is not a continuous one, spreading toward the periphery. As the lead is removed from the system, convalescence progressing, a regeneration of nerve substance takes place in the affected fibers, similar to that which occurs in the peripheral extremities of divided nerves after reunion of the cut ends.

QUARTERLY REPORT ON VENEREAL AND GENITO-URINARY DISEASES.

No. II.

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Venereal Diseases.

1. Sigmund.—Zur Behandlung der Psoriasis palmaris und plantaris syphilitica. "Wien. med. Wochenschr.," Oct. 11, 1879.
2. Henop, W. — Ein Fall von luetischer Erkrankung der Lungen. "Deutsches Arch. f. klin. Med.," xxiv., S. 250; "Centralbl. f. d. med. Wiss.," Jan. 3, 1880.
3. Hutchinson, J.—Clinical lectures on various subjects at the London Hospital. "Med. Times and Gaz.," Jan. 17, 1880.
4. Cutter, J. C.—Chancre of the nostril. "Phila. Med. Times," Mar. 13, 1880.
5. Montez, L.—Recherches sur la trace indélébile du chancre syphilitique; ses caractères. "Lyon Méd.," Nov. 30, 1879.
6. Drysdale, C. R.—On syphilitic urethritis and vaginitis. "Med. Press and Circular," Nov. 26, 1879; Jan. 14, 1880.
7. Hudson, N. S.—Syphilis—a child infected through the utero-placental circulation. "Am. Practitioner," March, 1880.
8. Scarenzio.—Sifilide congenita per diretta influenza paterna. Immunità della gestante. Contagio infettante nella puerpera per opera del neonato. "Giorn. Ital. delle Mal. Vener. e della Pelle," Feb., 1880.
9. Viforcos, A. R.—El salicilato de cal en la terapéutica de las enfermedades venéreas. "Rev. Espec. de Oftalmol., Sifilograf., Dermatol., y Afecc. Urin.," Feb. 15, 1880.
10. Butler, F.—Syphilitic condyloma of the eyelid, with bubonic enlargement of the lymphatics over the corresponding parotid. "Montreal Gen'l Hosp. Rep.," vol. i., 1880.
11. Otis, F. N.—Clinical lectures on the physiological pathology of syphilis. Lecture V. Period of lymphatic obstruction. "Boston Med. and Surg. Jour.," Feb. 5, 1880.
12. Walker, G. B.—Sanitary view of syphilis. "Indiana Med. Reporter," Feb., 1880.
13. Gamberini.—La moderna sifilografia teorico-clinica rivendicata all' Italia. "Giorn. Ital. delle Mal. Ven. e della Pelle," Feb., 1880.
14. Ochoa, B. H.—La sifilis y sus teorias. "Rev. Espec. de Oftalmol., Sifilograf., Dermatol., y Afecc. Urin.," Feb. 15, 1880.
15. Martineau.—Syphilides muqueuses—Ulcérations syphilitiques de la gorge—leur diagnostic—leur traitement. "Trib. Méd.," Mar. 21, 1880.
16. Falinea.—Lesioni traumatiche nei sifilitici. "Giorn. Internaz. delle Sci. Med.," N. S., anno I., fasc. 10, 11, 12.
17. Sturgis, F. R.—Notes upon so-called "galloping syphilis." "Med. Gaz.," Feb. 14, 1880.
18. Van Harlingen, A.—Three cases of syphilitic muscular contraction. "Am. Jour. Med. Sci.," Apr., 1880.
19. Gamberini.—Storia di sifilide cerebrale. "Giorn. Ital. delle Mal. Ven. e della Pelle," Feb., 1880.
20. Jackson, J. H.—Lecture on a case of intracranial syphilis. "Lancet," Feb. 21, Mar. 6, 1880.

21. Van Peyma, P. W.—"Tonic treatment" of syphilis. "Buffalo Med. and Surg. Jour.," Feb., 1880.
22. Kurz, E.—Heilung der Syphilis ohne Quecksilber. "Memorabilien," Mar. 6, 1880.
23. Nusser, A.—A peculiar form of micrococcus in gonorrhœa. "Centralbl. f. Med.," No. 28, 1879. "Phila. Med. Times," Oct. 25, 1879.
24. White, O. A.—Mechanical compression in orchitis. "Boston Med. and Surg. Jour.," Jan. 29, 1880.

1. Sigmund advises, for secondary lesions (papules, pustules, or *scaling eruptions*) of the skin or mucous membrane, strong solutions of the bichloride of mercury. The pain is relieved by moistening the part one or two hours afterward with solution of acetate of lead (1 to 20). He claims by this treatment to be able to prevent scars and pigmentations in many instances, if the applications be made sufficiently early. As soon as the erythematous infiltration makes its appearance, the spot is touched with a solution of the bichloride, of the strength of one or two per cent., once or twice a day. It is better to make the first application in the morning, so as to repeat it if necessary or to control its action by the lead-solution. A caution is advised to always use fresh brushes, lest the sublimate left from a previous use of the brush should unduly increase the strength of the application. The part to be treated must be carefully cleansed from grease, sweat, etc., before the application is made. For the external skin, the writer prefers a solution in collodion, particularly for the scaly patches that occur on the palms of the hands and the soles of the feet. Where the skin is tender, and for the lighter forms of papular, pustular, or scaly eruptions, a solution in alcohol is used, and for the mucous membranes an ethereal solution. In the present communication the writer treats more particularly of the scaly eruptions of the palms and soles, commonly known as psoriasis palmaris and plantaris, which often belong to the most obstinate forms of syphilitic lesions. For the lighter and more recent cases he uses the collodion-solution, prepared as follows: Corrosive sublimate, one part; linseed oil, one part; collodion, 15 to 25 parts. This is applied in the morning. During the day it becomes separated by friction, and at night a white precipitate ointment is rubbed into the affected parts, and soft gloves and socks are put on. In severe and inveterate cases, where callosities, fissures, and thick infiltrations have formed, lukewarm baths are used, with solutions of carbolic acid, chlorate of potassium, or common salt, and are repeated three times a day. These are followed by frictions with ointments of acetate of lead (1 to 20), oxide of zinc (1 to 10), or sulphate of zinc (1 to 25). These applications render the skin softer and cleaner, and promote the healing of cracks and fissures. When the fissures are deep and painful, they are sometimes best treated, the writer thinks, by strips of mercurial plaster, composed of equal parts of emplast. saponat. and emplast. hydrarg. (Ph. Germ.). They should not be touched with the sublimate-solution. Where there are thick, callous infiltrations (psoriasis cornea), he rubs in for five or ten minutes, at night, the officinal mercurial ointment, and then has the patient put on gloves or socks. When the cracks or fissures have healed, the collodion with bichloride is applied. This affection does not always require general anti-syphilitic treatment, but attention should be paid more to hygiene and diet, particularly meat diet. The writer has found the affection very common among the polenta-, macaroni-, and rice-eating people of Italy, who were cured simply by a meat diet.

2. Henop reports a case of *syphilitic disease of the lungs*. A sailor, aged eighteen, was admitted to the hospital for a simple affection, and, while there, developed the secondary symptoms of syphilis, which were successfully treated with mercurial inunctions. He left the hospital, but returned seven months later with mucous patches in the throat, fever, high temperature (40·6° C.), cough, and diarrhœa. Examination of the lungs revealed râles, partly crepitant, but nowhere dullness. The symptoms were relieved by the use of iodide of potassium, but they returned, and two months after, pleurisy occurring on the left side, the patient died. At the autopsy both lungs were found studded with hard, white nodules as large as hens' eggs. Within and about the nodules there were peribronchitic thickenings. On microscopic examination of the nodules, they were found to consist of granulation-tissue, with scattered spindle-cells and free giant cells. A gummous nodule was found also in the liver.

3. Hutchinson, recently, in showing a case of *phagedæna* of the hand in a woman who had had syphilis some years before, remarked that phagedæna should always excite a suspicion of syphilis. Phagedænic chancres often occur in those who have had syphilis before. The constitutional symptoms may not follow, the rapid destruction preventing the spread of the poison. When the symptoms manifest themselves, they are generally irregular—either much slighter or more severe than occur after a first infection. He thinks second attacks are by no means infrequent. The phagedæna is treated by cauterization with the acid nitrate of mercury and prolonged immersion in a warm bath. If of the penis, a hip-bath is continued for eighteen hours out of the twenty-four.

7. A case is reported by Hudson which furnishes pretty strong evidence of *infection of the fœtus in utero by the mother.* A gentleman applied to the writer with an indurated chancre of the glans penis. He claimed to have had illicit connection but once in two years, and that was with a courtesan about three weeks before the appearance of the sore. Meantime he had had regular intercourse with his wife. She, on examination, was found to have a newly developed sore on the genitals, which in due time was followed by constitutional symptoms. At the time the disease was contracted she was in the third or fourth month of pregnancy. The child, when born, was intensely syphilitic. Lesions affected the skin over the entire body, and there were nodes on most of the long bones. The infant lived only about two weeks. Previous to this the lady had borne a healthy child. A subsequent conception ended in miscarriage.

11. Otis propounds a theory to account for the so-called "*gummy deposits*" *of tertiary syphilis.* He regards them not, properly speaking, as lesions of syphilis, but as accumulations resulting from obstruction of lymphatic vessels. During the active period of the disease changes are effected in these vessels, it is supposed, which produce a condition analogous to stricture of the mucous passages. The writer speaks of the deposits as "recent accumulations of normal tissue-elements which are in excess of the necessities of repair, and, normally, should be conveyed away in the lymphatic circulation." In support of this theory, a case of Biesiadecki's is cited, of syphilitic ulcers in the intestines, in which microscopic sections showed (what were supposed to be) cross sections of the lymphatic vessels filled with round cells. To us this case appears to prove merely that the process had by extension involved the lymphatic vessels. Dr. Otis's theory may be correct, and is certainly ingenious; but, as yet, it is far from being susceptible of proof. An objection to it which occurs to us is the long period it takes for the obstruction or its effects to develop. The theory might apply equally well, it would seem, to the earlier lesions —the initial induration, for instance, which is histologically identical with the gummy tumor—but we doubt if the writer would maintain that the initial lesion was not essentially syphilitic.

23. Nusser, by the aid of high magnifying powers, found a *peculiar or-*

ganism in gonorrhœal discharge. At first it is round, afterward oval, and then divides by fission, subdividing again at right angles so as to form sarcina-like groups. Twenty or thirty of these unite into a heap surrounded by a sort of envelope. Their favorite seat is upon the surface of pus-corpuscles. We fear for Nusser's micrococcus a similar fate to that of Lostorfer's corpuscles.

24. Dr. White, of this city, has invented an ingenious contrivance for *compressing the enlarged testicle in orchitis.* It consists of a thin shell of hard rubber, perforated with holes and slit in front in such a way that it can be fitted over the testicle, and the compression is exerted by lacing together the edges of the slit in front, or by overlapping them.

GENITO-URINARY DISEASES.

1. Gouley, J. W. S.—Internal urethrotomy and lithotripsy at the same sitting in a patient seventy-nine years of age; with remarks on the evacuation of detritus from the bladder. "Med. Record," Oct., 1879.
2. Smith, T.—Abstract of a clinical lecture on Bigelow's operation for stone. "Lancet," Jan. 10, 1880.
3. Thompson, Sir H.—Lithotrity at a single sitting. "Lancet," Jan. 17, 1880.
4. Stokes, W.—Litholapaxy or lithotrity at a single sitting. "Med. Press and Circular," Jan. 7, 1880.
5. Coulson, W. J.—Three cases of stone in the bladder treated by lithotrity and rapid evacuation of the fragments (Bigelow's method). "Lancet," Jan. 31, 1880.
6. Hill, B.— A modified Clover's bottle for the rapid evacuation of débris after lithotrity. "Lancet," Jan. 24, 1880.
7. Bigelow, H. J.—An improved evacuator. "Boston Med. and Surg. Jour.," Jan. 8, 1880.
8. Keyes, E. L.—Rapid lithotrity, with evacuation. "Am. Jour. Med. Sci.," April, 1880.
9. Smith, T.—Bigelow's operation for stone. A case, with remarks. "Lancet," March 6, 1880.
10. Jordan, F.—Clinical lecture on a method of performing lithotomy. "Brit. Med. Jour.," Jan. 24, 1880.
11. Swain, W. P.—Case of supra-pubic lithotomy. "Lancet," Jan. 10, 1880.
12. Campbell, H. F.—Urinary calculus. "Trans. Amer. Med. Ass.," vol. 30, 1879.
13. Ford, W. H.—Vesical and urethral calculi successfully removed by lithotrity and median lithotomy. "St. Louis Med. and Surg. Jour.," March, 1880.
14. Koehler.—Magnesia borocitrica gegen Harnsteine. "Berl. klin. Wochenschr.," Nov. 3, 1879.
15. Gouley, J. W. S.—Note on cystorrhagia from retention of urine. "Med. Record," Feb. 21, 1880.
16. Godlee, R. J.—A case of prostatic abscess. "Lancet," Feb. 14, 1880.
17. Heuriet, L.—De la castration et de la ligature du cordon dans les sarcocèles en ectopie inguinale. "Tribune Méd.," Feb. 15, 1880.
18. Nooel, M.—Ein seltener Fall von Kryptorchismus. "Med. Jahrb.," von S. Stricker, I., II. H., 1880.
19. Skinner, W. T.—A case of laceration of the penis during coition, involving the complete severance of the urethra, with infiltration of urine, followed by abscess resulting in urinary fistula. "Phila. Med. Times," April 10, 1880.

20. Lee, E. W., and Feuger, C.—Rupture of the subpubic portion of the urethra. "Chicago Med. Gaz.," Feb. 5, 1880.
21. Watson, E.—On the treatment of stricture of the urethra. "Glasgow Med. Jour.," April, 1880.
22. Fenwick, G. E.—Obliteration of the urethra from injury. "Canada Med. and Surg. Jour.," Feb., 1880.
23. Barbiglia.—La circoncisione. "Giorn. Internaz. delle Sci. Med.," N. S., anno I., fasc. 10, 11.

1. In an article which Dr. Gouley published last October, he referred to three cases of *operation for stone by Bigelow's method*, but in two of them the operations were unsuccessful. The history of one of the cases forms the main topic of the article. The patient was an old man with a phosphatic stone in the bladder, complicated with an exceedingly irritable urethra and a resilient stricture. It was intended to divide the stricture under anæsthesia, and to perform rapid lithotripsy, with evacuation of the fragments by aspiration, at one sitting, if possible, of twenty minutes' duration. But the washings brought away but a small amount of detritus, and, since it was deemed advisable not to prolong the sitting, two subsequent operations were required to complete the cure. In another case a false route in the deeper portion of the urethra prevented the passage of any of Bigelow's evacuation-catheters, though the lithotribe was passed with ease, and the detritus was evacuated by means of the rubber catheter. Six sittings were required. In the third case, in which a small oxalate-of-lime calculus had caused great irritation of the bladder and urethra, Bigelow's method was employed with entire success.

In this article the writer is careful to express a conservative opinion with regard to litholapaxy. "Long sittings," he says, "are justifiable in many cases, but I would not be willing to resort to them in aged persons, such as the patient of seventy-nine years who is the subject of these remarks; in like cases I believe that several (three, four, or five) sessions of one or two minutes, without anæsthesia, are safer than a single long one of an hour or more, with the aid of an anæsthetic." Gouley has slightly modified the curved catheters of Bigelow by altering the curve so that it conforms to that of the ordinary lithotribe, and by moving the eye further from the point. The beak of Mercier's rectangular catheter, slightly modified, is added to the straight tube of Bigelow. This instrument is of advantage, particularly in cases of urethro-vesical valvule. A very interesting historical sketch is appended to the article, showing how by successive steps the principles involved in litholapaxy were gradually wrought out.

2. Mr. Thomas Smith believes it highly probable that *litholapaxy* will entirely reform our practice in the treatment of stone.

3. Sir Henry Thompson has employed *Bigelow's method* in thirty-one consecutive cases, and is "disposed to accord to its inventor the credit of having made a decided advance in the operations of lithotrity." The writer thinks that the practice of repeated sittings, with as gentle and rapid manipulations as possible, is to be referred to the period anterior to anæsthesia. He had latterly employed anæsthesia for lithotrity, and since then had been gradually reducing the number of sittings, and removing more detritus on each occasion. He had also been more and more employing Clover's aspirator, whenever, on account of inflammation or irritation, it was specially desirable that as few fragments as possible be left in the bladder. Hence the operation of Bigelow was not such a very wide departure from his own practice. Of the thirty-one cases, not one was fatal. But he thinks the number insufficient. He once had an unbroken series of forty-eight cases of lithotripsy without a death. In operating by the new method he repeats the crushing, if necessary, but thinks a few small fragments may be left with impunity. The longest sitting he has ventured on was twenty-five minutes, during which he removed 329 grains of a hard uric-acid stone from a gentleman seventy-eight years of age. Three days afterward he removed 192 grains in thirteen minutes, which completed the case. On an average, he has removed from 150 to 200 grains, in ten minutes, of hard calculus (uric acid or oxalate of lime), and, where the calculus has been phosphatic, he has removed larger quantities. Thompson uses a lithotrite slightly stronger than heretofore, "with the male blade more wedge-shaped, or, rather, like the prow of a ship; in part angular, in part more bluff or obtuse." This male blade protrudes through a small opening at the bottom of the female blade, so as to prevent clogging. He has modified the Clover aspirator in such a way as to secure the shortest route for the detritus from the bladder to the receiver, to prevent the entrance of air, and to guard against the escape of the fragments from the receiver after they have once been lodged there. The apparatus is kept upright; the water is introduced at a cup-shaped mouth at the top, provided with a stop-cock; the glass receiver, or trap, is placed at the bottom, with a funnel-shaped valve leading into it a short distance from above, which prevents the débris from reëntering the bladder. Between the rubber bulb and the trap is the connection with the evacuating catheter, which by means of a valve can be made to communicate at will either with the bulb above or with the trap below.

6. Berkeley Hill's *apparatus for litholapaxy* differs from Thompson's mainly in the trap being situated between the bottle and the evacuating catheter. It is designed to meet the same objections to Bigelow's original aspirator as is that of Thompson. A stout rubber bottle, holding ten ounces, is fitted at its neck to a glass receiver or trap which is blown into a "discoid shape resembling that of a flat turnip or onion," with a transverse diameter of three and a quarter inches. The mount of the receiver is closed by a cap, in which the evacuating catheter can be fitted in a joint fastened by a bayonet-catch. The catheter is prolonged into the center of the receiver by a short tube, six sixteenths of an inch in diameter, to prevent the reflux of fragments. It is necessary to fill the apparatus with water before the connection is made with the catheter. Hill reports three successful cases.

7. In a lecture delivered before the Dorchester Medical Club, Professor Bigelow describes an *evacuator* which appears to be a decided improvement upon his first apparatus. It is mounted upon a small stand, which can be placed between the patient's legs. The glass receiver, which is of a spherical shape, rests upon a metallic disk, and is held in place by a screw-catch, which supports it on the stand in such a way as to form a ball-and-socket joint, which allows free movement in any direction. Above this is the rubber bottle, from the top of which proceed two rubber tubes. One, five inches long, connects with the evacuating catheter. It is continued into the bulb for a short distance, so as to form a chamber above its orifice, in which air can collect. The other tube connects at one end with the bulb, while the other end is immersed in a basin of water. By this means air may be discharged from the bulb through the tube into the basin, the stop-cock of the catheter being closed, and the bulb may be filled through the same tube. "In this way not a drop of water need be spilled." Furthermore, since the bulb is nearly on a level with the bladder, the aspiration is more easily performed. [See remarks by Dr. Bigelow on page 293 of the March number of this "JOURNAL."]

8. Dr. Keyes's article on *rapid lithotrity with evacuation* is the most exhaustive that has appeared recently. He reports the large total of twenty-one operations, all occurring in his own or his partner's (Dr. Van Buren's) practice. They extend over a period of two years, during which time every case of stone under his charge was treated by the rapid method. There was one death. He tabulates one hundred and seven cases, with six deaths. Rapid lithotrity was performed by Keyes in twenty-four cases, but five of these are excluded as not properly answering to the definition of litholapaxy. He defines the operation as consisting in "prompt and entire fragmentation of the stone; immediate, and, if possible, entire evacuation of the débris." This operation, he claims, is exclusively the property of Dr. Bigelow "by right of discovery." "It forms," he says, "as distinct a step in advance over the old method as Esmarch's bandage does over the tourniquet, or Dieulafoy's aspirator over the trocar and cannula." But it is the principle, he urges, which is new, and this is not affected by any modifications of the apparatus for carrying it out. Litholapaxy is performed, whatever the means employed, so long as the operation comes within the definition given above.

Of Keyes's 19 cases, in only 2 was a stone left large enough to crush at a second operation. The greatest length of time occupied at one sitting was 85 minutes, and with a yield of 630 grains of phosphatic stone. The average yield to the minute in his operations was 4½ grains. Thompson, in his first paper, gives an average, with 13 cases, of 16½ grains to the minute when the stone was composed of uric acid or oxalate of lime, and 12½ grains when it was phosphatic. In his second paper, with 31 cases, he reports an average of from 15 to 20 grains to the minute.

With regard to the dangers of the operation, Keyes states that injuries of the urethra are more serious than those of the bladder, and cites instances in corroboration of his statement. But he regards the operation as almost universally indicated in cases of stone, the only conditions which might contraindicate it being "hopeless maladies of any kind, distortions of the urethra preventing the use of proper instruments, and possibly large size of a very hard stone." His patients were in all conditions of health—some with moderate evidences of renal disease. In the one fatal case, the patient was "desperately and mortally ill before the operation was undertaken." In the way of preparation for the operation the writer gives certain directions. If there is atony of the bladder, and the urethra is already accustomed to the catheter, no further preparation is necessary, though it is better to wash out the bladder for a few days with a solution of borax. Stricture of the meatus, or within the first inch, may be divided at the time of the operation, but if situated further back its division should be made previously. The caliber of the urethra at the third inch should determine the size of the evacuating tube to be used. If before the operation the urine is decomposed, the bladder should be washed with a saturated solution of borax in hot water "till it becomes sweet." In operating, he crushes rapidly from six to ten times, according to the size of the seizures; then washes till débris ceases to fall into the receiver, when the lithotrite is at once reintroduced, while an assistant empties the receiver and refills the bottle. A special manœuvre is described which was used in catching the stone when lodged in a pouch near one ureter. The bladder was well filled with water, and, the patient being turned on his side, the stone was dislodged by the searcher. Much stress is laid upon the thoroughness with which the final "test wash" should be made. This is done after all soreness from the operation is gone. The ear being placed near the abdomen, the swash of the water in the bladder can be easily heard, as well as the click of any remaining fragments of stone upon the sides of the catheter. As to the length to which the sitting may be prolonged, the writer suggests one hour, which limit, however, he would not always strictly adhere to. Thompson puts it at thirty minutes. Thompson's aspirator was preferred by Keyes to that of Bigelow, but he has altered it by making the receiver cylindrical, instead of spherical, in order that the contents may be more easily seen in case they are mixed with blood; he also discards the funnel-shaped valve in the trap. He uses a lithotrite of his own, which is not unlike that used by Thompson, and is designed to prevent clogging. Dr. Keyes reiterates the caution, already expressed by others, that litholapaxy is not a simple operation, except to the experienced lithotriptist. It should only be undertaken by those who have become thoroughly familiar with the handling of instruments in the bladder, and who can distinguish directly a fold of mucous membrane if caught within the jaws of the lithotrite.

10. An accident in an operation for stone, which a somewhat inexperienced practitioner was performing, suggested to Jordan, who was assisting him, *a new method for lithotomy.* The accident consisted in the operator letting the knife slip from the staff when about to enter the bladder, in consequence of which the membranous portion of the urethra was transfixed, and a false route was made between the bladder and the pubes. The finger having been introduced into this false passage, the operator felt the stone through the anterior wall of the bladder, and, supposing that his finger was in direct contact with it, and in the bladder, the staff was withdrawn, the forceps was introduced, and efforts were made to extract the stone. The operator continued these vain attempts, till Jordan, making an examination, discovered the true state of things. The difficulty was solved by making an incision from the false passage, through the anterior wall of the bladder, directly down upon the stone, when the latter was readily extracted through the opening. This case suggested to the writer the plan of making the incision of the vesical neck anteriorly, instead of posteriorly. The membranous portion is opened in the usual way behind the triangular ligament. Either the median or the lateral incision may be used, though he prefers the latter. The outer wound is slightly curved or angular, the concavity being toward the rectum. The membranous urethra is freely opened. The finger, well oiled, is then passed through the uncut prostatic urethra, and brought in contact with the stone. The staff is then removed, and, the neck of the bladder having been pressed firmly downward and backward, a straight, blunt-pointed bistoury is slid flatwise along the dorsum of the finger till the bladder is reached. The knife is then turned, and by a quick movement passed in and out of the bladder, cutting the tissues to the extent required. No pressure on the knife is necessary, since the tissues are put on the stretch by the finger. The forceps is then passed along the finger, which is still kept in the same position, and the stone is seized and withdrawn. In children, where the urethra is small, and does not readily admit the finger, a sheathed bistoury, similar to the meatotome of Civiale, is used, which also serves as a sound. It is claimed that this operation affords the shortest route to the bladder, as well as avoids the parts most liable to injury. From the fact that the anterior wall of the bladder forms a sharp angle with the prostatic urethra, while the posterior wall is practically in the same plane with it, an incision through the anterior prostatic wall can be much more definitely limited in its extent. Five cases had been operated upon successfully by this method.

14. Some years ago, a pamphlet was published by Becker on "*Boracite, the secret remedy of Paracelsus for stone*" (Mühlhausen, 1868). Koehler, taking the suggestion from this, experimented with the remedy with, as he considers, favorable results. In preference to boracite (the borate of magnesium), Koehler used a combination of it with citric acid, in which it is readily soluble, forming boro-citrate of magnesium. In five cases of gravel in which it was tried it seemed to promote the discharge of "sediment or small stones, and afterward to keep the urine clear." A small stone, about half as large as a pea, was immersed in a solution of the salt, and within eight days was crumbled and reduced to a fine sand.

15. Gouley offers an explanation of *the hæmorrhage which sometimes occurs on suddenly emptying a bladder* which has for a length of time been over-distended. This occurrence has been described by others, but heretofore without a satisfactory explanation. Mercier attributed it to the sudden and violent contraction of the muscular layer, the effect of which was to squeeze the blood out of the congested mucous membrane as out of a sponge. But opposed to this is the fact that the muscular coat seldom contracts with energy in these cases, and, if it did, the hæmorrhage would be prevented. According to Gouley, the effect of over-distention of the bladder is to impair the strength of the muscular layer and the walls of the capillary blood-vessels. So long, however, as the bladder remains full, no bleeding can occur, since the force of the blood current is opposed by the pressure of the retained urine, but directly the urine is withdrawn the blood presses into the capillaries, and easily bursts its weakened barriers. Hæmorrhages occur in a similar manner occasionally after the sudden evacuation of large abcesses with tense walls, or of large hydroceles, and also sometimes after ovariotomy. Hæmorrhage does not occur invariably after retention. It is most common in middle or advanced life, and especially where the vesical mucous membrane is in a diseased condition. In young adults or adolescents it is uncommon, and in children exceedingly rare. In chronic cystitis, with sclerosis of the muscular coat, the unyielding mucous membrane is liable to crack or tear from distention, and in such cases the first urine drawn may be bloody, but generally the blood does not appear at once. The writer refers incidentally to the occasional occurrence of polyuria following retention, and cites a case where a pint of urine was drawn every hour for twenty-seven consecutive hours. The plan of treatment for cystorrhagia advised by the writer is a natural corollary of his explanation of its mechanism. A bladder which has been over-distended for any length of time, especially where there is reason to suspect disease of its coats, should never be emptied suddenly, but in the course of twelve, twenty-four, or forty-eight hours, or even a longer period. A gum or soft rubber catheter is introduced, and a pint of urine is withdrawn. A half pint of warm solution of borax (borax, ℈j) is then thrown in, and a half pint withdrawn. This is repeated till the urine becomes clear or nearly so. Afterward, every hour or every two hours, the stopper of the catheter, which is left in, should be removed, and a half pint of fluid allowed to flow, until the bladder is emptied. If hæmorrhage occurs, it should be combated with ice in the rectum, or by the injection into the bladder of two or three ounces of weak cold solution of tannin or alum in water, or some other astringent. In the way of general treatment Gouley advises fifteen or twenty minims of fluid extract of ergot every two or three hours, gallic acid dissolved in glycerine, quinine and dilute sulphuric acid, or the tincture of the chloride of iron. When hæmorrhage occurs, and the blood coagulates in the bladder, so as not to flow through the catheter, different procedures have been recommended. Chopart advised the injection of warm water into the bladder to break up the clots, and, if they did not come away, the nozzle of a syringe was inserted into the end of the catheter and aspiration made. Civiale, while approving of the injection of warm water to soften the clots, objects to aspiration on the ground that if the clots be removed a cavity will be left, into which fresh bleeding will occur, and the plugs formed at the mouths of the blood-vessels will be disturbed. If the clots are left alone, he claims, they can do no harm, and will be dissolved readily in the urine. The writer is of the opinion that aspiration, if properly performed, can do no harm; but the contents should not be removed too hastily. A soft catheter, as large as can be passed, is introduced, and two or three ounces of warm borax-solution are injected, and, if nothing flows then, the instrument is gently moved about in the bladder "so as to break up the clots, and then with a syringe or Bigelow's bag aspirate, three or four ounces at a time, and at the same sitting continue injections and aspiration, never withdrawing more fluid than has been injected, until all the blood has been removed and the returning liquid is nearly clear."

Miscellany.

THE ANTI-VIVISECTION BILL.—The State Legislature is to be praised for the good sense it has shown in killing the bill recently before it for the prevention of vivisection. No doubt this action is largely attributable to the following dignified memorials presented by the leading medical colleges and societies of the State: A MEMORIAL FROM VARIOUS MEDICAL SOCIETIES AND ASSOCIATIONS. *To the Honorable the Legislature of the State of New York: Whereas*, There is now before the Legislature a bill which is intended to prohibit, under the name of vivisection, the employment of experiments on animals for medical and scientific investigations; and *Whereas*, Such prohibition would have a most injurious effect upon the cultivation and improvement of medical knowledge, and would be an obstruction to scientific discovery, and consequently a practical disaster to the interests of humanity; therefore, We, the members of the New York Academy of Medicine; of the Medical Society of the County of New York; of the New York Medical and Surgical Society; of the New York Pathological Society; of the Albany Academy of Medicine; of the Buffalo Medical Association; of the Rochester Medical Society; of the Brooklyn Anatomical and Surgical Society; of the Elmira Academy of Medicine; and of the Medical Society of the State of New York, representing all the county medical societies in the State, beg leave respectfully to express our strenuous opposition to the proposed enactment, as contrary to the interests of the State and an enlightened policy of legislation. Experiments upon animals have the same value for investigation and discovery in medicine as those in physics and chemistry for the corresponding branches of natural science; they have been, in point of fact, a most valuable aid in medical research, and have often led to important discoveries upon which depends our knowledge of the human body in health and disease; they have made us acquainted with the functions of the internal organs, and the action of their different parts; they have brought to light a variety of methods and procedures for saving or prolonging life; they have been instrumental in the modification and improvement of important surgical operations; they have detected the cause and mode of transmission of contagious and infectious disorders; and they have been the means of introducing new and useful applications of medicinal remedies. They are not performed in such a way as to cause the infliction of unnecessary physical pain, suffering, or death upon the brute creation, but with due regard to its alleviation or prevention by every appropriate means. Their results, in increased knowledge of the living body, and facilities for its successful treatment and cure, in veterinary medicine, are of benefit to great numbers of the domestic animals, and are therefore of importance in increasing and perserving the animal wealth of the State. The clause in the existing law, which recognizes the propriety and usefulness of such experiments, and expressly protects them from interference, was adopted by the Legislature in the session of 1867, after full and deliberate consideration; we regard it as a prudent, just, and humane legal provision; we offer our earnest protest against the present bill, which is intended to nullify its operation; and we confidently hope that no such unwise enactment will receive the countenance of the Legislature of the State of New York. (Signed) *New York Academy of Medicine:* Fordyce Barker, M. D., LL. D., President; Edwin F. Ward, M. D., Secretary. *Medical Society of the County of New York:* A. E. M. Purdy, M. D., President; F. A. Castle, M. D., Secretary. *New York Medical and Surgical Society:* C. R. Agnew, M. D., President; A. B. Ball, M. D., Secretary. *New York Pathological Society:* Thomas E. Satterthwaite, M. D., President; George F. Shrady, M. D., Secretary. *Albany Academy of Medicine:* B. U. Steenberg, M. D., President; T. B. Van Alstyne, M. D., Secretary. *Buffalo Medical Association:* Lucien Howe, M. D., President; Joseph Fowler, M. D., Secretary. *Rochester Medical Society:* William S. Ely, M. D., President; Porter Farley, M. D., Secretary. *Brooklyn Anatomical and Surgical Society:* Lewis S. Pilcher, M. D., President; Geo. R. Fowler, M. D., Secretary. *Elmira Academy of Medicine:* P. H. Flood, M. D., President; H. D. Wey, M. D., Secretary. *Medical Society of the State of New York:* Henry D. Didama, M. D., President; Wm. Manlius Smith, M. D., Secretary. *To the Honorable the Legislature of the State of New York:* The Faculty of the College of Physicians and Surgeons, Medical Department of Columbia College; of the University of the City of New York, Medical Department; of the Bellevue Hospital Medical College; of the Albany Medical College; of the Medical Department of the University of Buffalo; of the Long Island College Hospital; and of the College of Medicine, Medical Department of Syracuse University, having learned with regret that a bill has been presented to the Legislature, having for its object to prevent experiments upon animals for medical and scientific purposes, respectfully represent to your honorable body: That the usefulness and value of these experiments in the study and improvement of medical science are established by the united experience and testimony of the medical profession; that they are of great importance in the teaching and demonstration of facts which lie at the basis of medical knowledge; that to interdict their employment would be, in our opinion, to obstruct and cripple medical instruction by depriving it of a valuable aid and by diminishing the means for imparting necessary information, and that it would consequently deteriorate the quality of medical education and the future efficiency of medical and surgical practice. For these reasons we would express our strong desire that the present law, by which these experiments are duly protected, should be retained in full force and effect, and that no other should be enacted to interfere with them. (Signed) *College of Physicians and Surgeons, Medical Department of Columbia College:* A. Clark, M. D., President; John G. Curtis, M. D., Secretary. *University of the City of New York, Medical Department:* Alfred C. Post, M. D., LL. D., President; Charles Inslee Pardee, M. D., Dean. *Bellevue Hospital Medical College:* Isaac E. Taylor, M. D., President; Austin Flint, Jr., M. D., Secretary. *Albany Medical College:* E. Nott Potter, M. D., LL. D., President; Thomas Hun, M. D., Dean. *University of Buffalo, Medical Department:* James P. White, M. D., President; Charles Carey, M. D., Secretary. *Long Island College Hospital:* Theodore L. Mason, M. D., President; Samual G. Armor, M. D., Dean. *College of Medicine, Medical Department of Syracuse University:* Frederick Hyde, M. D., Dean; William T. Plant, M. D., Registrar.

A New Germicide Apparatus.—We have received a *brochure*, issued by "The Germicide Company," of Nos. 822 and 824 Broadway, entitled "Plain Words on Health in Homes," in which is described and figured the apparatus employed by the company for disinfecting and deodorizing water-closets. We have also had under observation for several weeks the practical working of the contrivance, and have found that it answers the purpose exceedingly well. The disinfection of the plumbing is accomplished by a constant dripping of a solution of chloride of zinc into the pan, which at the same time prevents the trap from becoming empty from evaporation during prolonged disuse. The air of the room is purified by means of a thymol spray.

Army Intelligence.—*Official List of Changes of Stations and Duties of Officers of the Medical Department of the United States Army, from April 14, 1880, to May 13, 1880.*—King, William S., Lieutenant Colonel and Surgeon. His leave of absence still further extended six months on account of sickness. S. O. 101, A. G. O., May 7, 1880. ═══ Moore, John, Major and Surgeon. Granted an extension of two months of his present leave of absence. S. O. 90, A. G. O., April 23, 1880. ═══ Heger, A., Major and Surgeon. Assigned to duty as Post Surgeon at Fort Clark, Texas. S. O. 78, Department of Texas, April 24, 1880. ═══ Goddard, C. E., Major and Surgeon. When relieved by Assistant Surgeon Waters, to comply with S. O. 74, C. S., A. G. O., in his case S. O. 78, C. S., Department of Texas. ═══ Waters, W. E., Captain and Assistant Surgeon. Relieved from duty at Fort Clark, and assigned to duty at Fort McKavett, Texas. S. O. 78, C. S., Department of Texas. ═══ Hall, J. D., Captain and Assistant Surgeon. Assigned to duty as Post Surgeon at Fort Randall, Dakota Territory. S. O. 42, Department of Dakota, April 13, 1880. ═══ Winne, C. K., Captain and Assistant Surgeon. When relieved by Assistant Surgeon Corbusier, to comply with Par. 1, S. O. 74, C. S., A. G. O. S. O. 32, Department of the Platte, April 13, 1880. ═══ Ainsworth, F. C., Captain and Assistant Surgeon. The operation of so much of Par. 1, S. O. 74, C. S., A. G. O., as relates to him is suspended until September 1, 1880. S. O. 83, A. G. O., April 22, 1880. ═══ Merrill, J. C., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Shaw, Montana Territory, and assigned to duty as Post Surgeon at Fort Custer, Montana Territory, relieving Assistant Surgeon L. S. Tesson, to enable him to comply with S. O. 74, C. S., A. G. O. S. O. 42, C. S., Department of Dakota. ═══ Wood, M. W., First Lieutenant and Assistant Surgeon. Granted leave of absence for six months, and at expiration thereof to comply with Par. 1, S. O. 74, C. S., A. G. O. S. O. 97, A. G. O., May 3, 1880. ═══ Corbusier, W. H., First Lieutenant and Assistant Surgeon. Relieved from duty at Camp Sheridan, and assigned to duty at Fort Washakie, Wyoming Territory. S. O. 32, C. S., Department of the Platte. ═══ Gray, W. W., First Lieutenant and Assistant Surgeon. Assigned to temporary duty at Fort Point, California. S. O. 55, Division of Pacific and Department of California, April 27, 1880. ═══ McCreery, George, First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Apache, Arizona Territory, as Post Surgeon, relieving Assistant Surgeon Walter Reed, U. S. A. S. O. 48, Department of Arizona, April 16, 1880. ═══ Schué, E. D., First Lieutenant and Assistant Surgeon. Assigned to duty as Post Surgeon at Fort Grant, Arizona Territory. S. O. 48, C. S., Department of Arizona. ═══ Cochran, J. J., First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Lewis, Colorado. S. O. 94, Department of the Missouri, April 28, 1880. ═══ So much of Par. 1, S. O. 74, April 3, 1880, from A. G. O., as relates to Assistant Surgeon F. Meacham is revoked, and as relates to Assistant Surgeon W. C. Shannon is suspended until October 1, 1880. S. O. 87, A. G. O., April 20, 1880.

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PHYSICIAN FOR DISEASES OF WOMEN TO THE OUT-PATIENT DEPARTMENT OF THE NEW YORK HOSPITAL.

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It is now five years since we first introduced and began the manufacture of Extract of Malt in the United States. It has been our aim to furnish the medical profession in America with a malt-extract equal to the best German make, and (by saving the expenses of importation) much cheaper than the foreign article can be afforded. For the manner in which our efforts have been appreciated by the medical profession we desire to express our warmest thanks.

The difficulties attending the manufacture of Extract of Malt in large quantities can be overcome only by that kind of skill which is acquired by experience. Its constituents must receive no injury by the process, and good flavor and keeping quality, adapting it to all climates, must characterize the product. All are familiar with the striking difference between certain celebrated brands of ale and porter—and yet the poorest as well as the best is, or should be, produced from barley-malt and hops. Success greatly depends, of course, upon the employment of none but the best material; but it is by the use of specific and long-tried procedures that results are obtained which are so difficult to rival.

We do ourselves but simple justice in stating that our *entire attention* is, and for many years has been, *exclusively* devoted to the manufacture of Extract of Malt for medicinal purposes, and that we give our undivided personal attention to each step in the delicate process by which Extract of Malt of excellent quality can alone be made.

Under these circumstances, it is unreasonable to suppose that the various manufacturers of fluid extracts, elixirs, pills, etc., who (attracted by the high reputation of our Extract of Malt) have recently, in various sections of the country, undertaken the manufacture of a similar article, should generally succeed in producing it of a quality according with the fulsome praise with which their advertisements are filled. While being perfectly willing to let the reputation of our Extract of Malt rest upon its real merits, we owe it to the medical profession, as well as to ourselves, to give warning against imposition.

It has come to our knowledge that certain articles extensively advertised as "pure" and "genuine extract of malt," are composed chiefly of the substance called GRAPE-SUGAR or MALTINE, which, as is well known, is the product of the action of sulphuric acid upon starch subjected to a high temperature. This artificial grape-sugar or glucose, which is extensively manufactured from corn-starch, is now being used in immense quantities, instead of ordinary cane-sugar, in the sophistication of confectionery, sugar-house syrup, "strained honey," native wines, and canned fruits, and by some brewers in the manufacture of beer and ale. The cheapness of this artificial product of Indian-corn constitutes the chief inducement for this species of substitution for barley-malt and cane-sugar.

Again, an extract of malted grain is manufactured for the purpose of obtaining *diastase*, which (simple and variously combined) is much used in medicine. The appearance of the extract is but slightly changed by being deprived of this important constituent, although it is unnecessary to add that its value as a medicinal agent is thereby greatly impaired. Nevertheless, this very substance, which is little more than refuse material, in the manufacture of diastase, is now being offered for pure malt-extract.

It is *malt-extract* prepared from Barley Malt combined with the proper proportion of Hops, that has been for many years the standard medicinal nutritive employed by the medical faculty of Europe, and especially of Germany. Its value has been established by experience, and its use in the treatment of almost all forms of disease of nutrition is constantly extending. We shall continue to devote the most scrupulous attention to the maintenance of the reputation of our malt-extract, by the careful selection of material, and by unwearied personal attention to manufacturing details.

Attention is respectfully directed to the accompanying extract from Ziemssen, and also to our circular and testimonials elsewhere printed.

Very respectfully,

TROMMER EXTRACT OF MALT CO.

From Ziemssen's Cyclopædia of the Practice of Medicine, Vol. XVI., page 474:

"The Malt Extract prepared from Trommer's receipt is designed to fulfill much the same purpose as Cod-Liver Oil, carbo-hydrates (malt-sugar, dextrin) taking the place of fatty matter. The simple (much or little hopped) and the chalybeate form of Malt Extract are coming more and more into favor as substitutes for the oil; they are more palatable and more easily digested, and should, therefore, be preferred in the dyspeptic forms of anæmia. During the last few years Malt Extract has almost entirely taken the place of Cod-Liver Oil in the treatment of phthisis and other wasting diseases, at the Basle Hospital, and we have as yet found no reason for returning to the use of the latter remedy. The Extract may be given from one to three times a day, in doses varying from a teaspoonful to a tablespoonful in milk, broth, beer, or wine."

TROMMER'S EXTRACT OF MALT.

The rapidly-increasing demand for our Improved Extract of Malt, during the four years that it has been manufactured and offered to the medical profession in America, justifies the belief that in its production here we are meeting a generally-felt want.

Long experience in manufacturing Malt Extract has enabled us to completely overcome the many difficulties attending its manufacture in large quantity; and we positively assure the profession that our Extract of Malt is not only perfectly pure and reliable, but that it will keep for years, in any climate, without fermenting or moulding, and that its flavor actually improves by age. Our Extract is guaranteed to equal, in every respect, the best German make, while, by avoiding the expenses of importation, it is afforded at less than half the price of the foreign article.

The Malt from which it is made is obtained by carefully malting the very best quality of selected Toronto (Canada) Barley. The Extract is prepared by an *improved process*, which prevents injury to its properties or flavor by excess of heat. **It represents the soluble constituents of Malt and Hops,** viz., MALT SUGAR, DEXTRINE, DIASTASE, RESIN and BITTER of HOPS, PHOSPHATES of LIME and MAGNESIA, and ALKALINE SALTS.

Attention is invited to the following analysis of this Extract, as given by S. H. Douglas, Professor of Chemistry, University of Michigan, Ann Arbor.

TROMMER EXTRACT OF MALT CO.: I inclose herewith my analysis of your Extract of Malt:

Malt Sugar, 46.1; Dextrine, Hop-bitter, Extractive Matter, 23.6; Albuminous Matter (Diastase), 2.469; Ash—Phosphates, 1.712; Alkalies, .377; Water, 25.7; Total, 99.958.

In comparing the above analysis with that of the Extract of Malt of the German Pharmacopœia, as given by Hager, that has been so generally received by the profession, I find it substantially agree with that article.

Yours truly, SILAS H. DOUGLAS,
Professor of Analytical and Applied Chemistry.

This invaluable preparation is highly recommended by the medical profession, as a most effective therapeutic agent for the restoration of delicate and exhausted constitutions. It is very nutritious, being rich in both muscle and fat producing materials.

The very large proportion of *Diastase* renders it most effective in those forms of disease originating in *imperfect digestion of the starchy elements* of food.

A single dose of the Improved Trommer's Extract of Malt contains a larger quantity of the active properties of Malt than a pint of the best ale or porter; and, not having undergone fermentation, is absolutely free from alcohol and carbonic acid.

The dose for adults is from a dessert to a table-spoonful three times daily. It is best taken after meals, pure, or mixed with a glass of milk, or in water, wine, or any kind of spirituous liquor. Each bottle contains 1½ lb. of the Extract.

Our preparations of Malt are for sale by Druggists generally throughout the United States and Canadas, at the following prices:

Extract of Malt, *with Hops (Plain)*	$1 00
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" " " " *Cod-Liver Oil*	1 00
" " " " *Cod-Liver Oil and Iodide of Iron*	1 00
" " " " *Cod-Liver Oil and Phosphorus*	1 00
" " " " *Hypophosphites*	1 50
" " " " *Iodides*	1 50
" " " " *Alteratives*	1 50
" " " " *Citrate of Iron and Quinia*	1 50
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FOR

Diseases of the Uric Acid Diathesis, especially Gout, Rheumatic Gout, Rheumatism, Stone, or Gravel.

Dr. Horatio C. Wood, *Professor of Materia Medica, etc., in the Medical Department of the University of Pennsylvania, in the "Medical Times" of July* 20, 1878.

"The Water of the Buffalo Springs, of Mecklenburg County, Virginia, was brought to our notice by a Baltimore physician, who had been relieved by its use of some very troublesome and alarming symptoms, believed to be due to an inherited gouty diathesis. Trial in one or two cases of inveterate Chronic Gout has afforded much satisfaction to us, free diuresis being provoked and followed by relief of symptoms."

Dr. Hunter McGuire, *Professor of Surgery in the Medical College of Virginia; ex-President Association of Medical Officers, Confederate Army and Navy; one of the Vice-Presidents of the International Medical Congress.*

[Extract from letter dated Richmond, Va., February 10, 1876.]

"I have used the Buffalo Lithia Water in cases of old Rheumatic Gout, which had resisted the ordinary remedies, with wonderfully good results. I have myself suffered a great deal lately from this malady. The Lithia Water certainly does me more good than anything else I have used; *of all the mineral waters of the country, I regard this as one of the most valuable.*"

Dr. Harvey L. Byrd, *of Baltimore, formerly Professor of Materia Medica and Therapeutics, and of Principles and Practice of Medicine, and late Professor of Obstetrics and of Diseases of Women and Children.*

[Extract from letter dated Baltimore, November 11, 1879.]

"My acquaintance with the therapeutical properties of the Buffalo Lithia Water extends over several years, and to a large number of cases in this city, and also to a season as resident physician at the Springs. As a consequence of this long experience and observation, I feel that in what I am about to say in regard to the properties and action of Spring No. 2 will be verified by all those giving the water a fair trial in the diseases hereinafter named, as well as in analogous or kindred conditions of the organism. I have witnessed the best results from the action of this Water in Chronic Gout, Rheumatic Gout, Rheumatism, Gravel, and Stone of the Bladder, and I do not hesitate to express the opinion that in *all* diseases depending upon or having their origin in the Uric Acid Diathesis, it is unsurpassed, if indeed it is equaled by any water thus far known to the profession."

Dr. J. S. Wellford, *Professor of Materia Medica in the Virginia Medical College.*

[Extract from letter dated Richmond, Va., September 3, 1879.]

"I have paid a great deal of attention to urinary troubles, and have frequently and freely prescribed the Lithia Water in their treatment with the very best results. In all the various forms of the Uric Acid Diathesis, whether as well-formed Gravel or Gout, or in the milder forms of Gouty Dyspepsia or Nettlerash in their various varieties, I know of no mineral water which I consider at all equal to that of Spring No. 2."

Dr. William B. Towles, *Demonstrator of Anatomy, University of Virginia.*

[Extract from letter of November 1, 1879.]

"Having had the most ample opportunities for observing the therapeutic action of the Buffalo Lithia Water, I feel no hesitancy whatever in saying that in Stone or Gravel of Uric Acid origin, Gout, Rheumatic Gout, and Rheumatism, and indeed in all maladies having their origin in the Uric Acid Diathesis, I know of no remedy either among mineral waters or medicines *of such unmistakable potency and such uniform efficacy.*"

These Waters, in cases of six gallons, may be had at the Springs at $5.00 per case; or of W. H. Schieffelin & Co., 170 William Street; Hegeman & Co., 203 Broadway; Caswell, Hazard & Co., cor. 5th Avenue and 24th Street; P. Scherer, 1 College Place, New York City, at $6.00 per case. Springs Pamphlet sent to any address.

THOMAS F. GOODE, Proprietor,

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"BALTIMORE, MD., *January* 20, 1879.

"We take pleasure in saying, in behalf of your preparations of MALTINE, that they have fully come up to the measure of your representations. They have given us the greatest satisfaction. We have used them extensively to the great benefit of our patients.

"DAVID STREETT, M.D., *Res. Phys., Maternité Hospital.*"

"LOUISVILLE, KY., *July* 11, 1879.

"I am using MALTINE with Pepsin and Pancreatine in my family, and am exceedingly pleased with its results. Professor Flint, of your city, whom I highly esteem, has been consulted about the case, and knows the solicitude I have had about it. The above preparation in sherry, after meals, has been productive of great benefit. I am using it in the City Marine Hospital, the Kentucky Infirmary for Women and Children, and in my private practice, and am much pleased with the results obtained.

"T. P. SATTERWHITE, M.D."

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"*In its superiority to the Extract of Malt prepared from Barley alone, I consider* MALTINE *to be all that is claimed for it*, and prize it as a very valuable addition to the list of tonic and nutritive agents.

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"C. R. J. KELLAM, M.D."

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"J. W. NORMAN, M.B., M.R.C.S."

Chemical Reports on Maltine.

By R. Ogden Doremus, M. D., LL. D.,

Professor of Chemistry and Toxicology, Bellevue Hospital Medical College; Professor of Chemistry and Physics, College of the City of New York.

New York, *April* 17, 1879.

I have visited the works at Cresskill, on the Hudson, where Maltine is prepared, and spent portions of two days in witnessing the chemical processes for making the same. I was particularly impressed with the thorough cleanliness observed, as well as with the completeness of the apparatus employed for accomplishing the desired result—from the first treatment of the grains to the concentration of the liquid product by evaporation *in vacuo.* The operation is effective in extracting the whole of the nutritive constituents of the grains of malted Barley, Wheat, and Oats, with but a slight residue, and is the most complete method yet devised, with which I am acquainted, for accomplishing this object.

Maltine is superior in therapeutic and nutritive value to any Extract of Malt made from Barley alone, or to any other preparation of any one variety of grain. From a chemical and medical standpoint, I can not commend too highly to my professional brethren this unique and compact variety of vegetable diet and remedial agent, nutritive to every tissue of the body, from bone to brain.

Respectfully,

R. OGDEN DOREMUS.

By Professor John Attfield, F. C. S.,

Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain; author of a Manual of General Medical and Pharmaceutical Chemistry.

London, 17 Bloomsbury Square, W. C.,
October 28, 1878.

To Messrs. Reed & Carnrick:

Gentlemen: I have analyzed the extract of malted Wheat, malted Oats, and malted Barley, which you term Maltine. I have also prepared, myself, some extract from these three malted cereals, and have similarly analyzed it, and may state at once that it corresponds in every respect with the Maltine made by myself. As regards the various Malt Extracts in the market, I may remark that your Maltine belongs to the non-alcoholic class, and is far richer, not only in the directly nutritious materials, but in the farina-digesting Diastase. In comparison, your Maltine is about ten times as valuable, as a flesh-former; from five to ten times as valuable, as a heat-producer; and at least five times as valuable, as a starch-digesting agent. It contains, unimpaired and in a highly concentrated form, the whole of the valuable materials which it is possible to extract from either malted Wheat, malted Oats, or malted Barley.

Yours faithfully,

JOHN ATTFIELD.

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We guarantee that Maltine *will keep perfectly in any climate, or any season of the year.*

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Signed by { P. W. BEDFORD, ISADOR WALZ, } Chemists.

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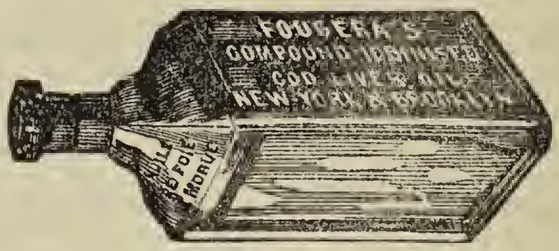

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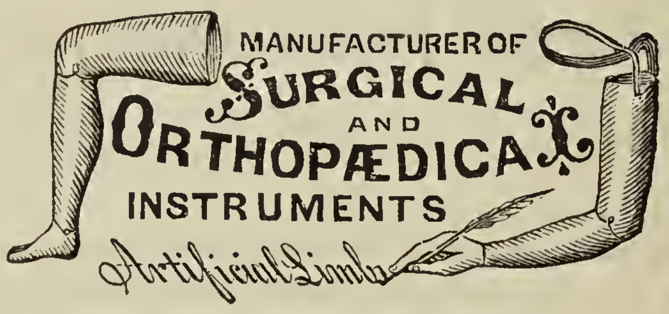

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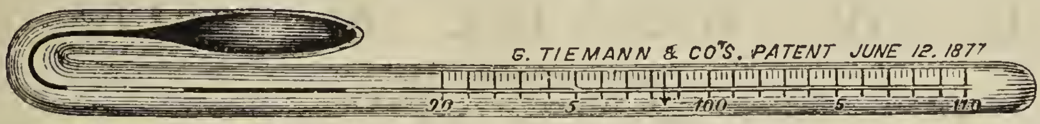
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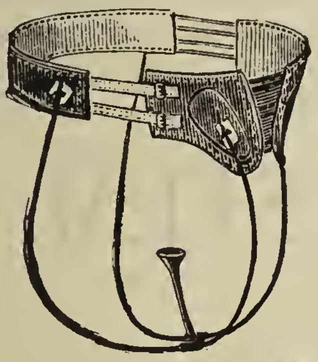

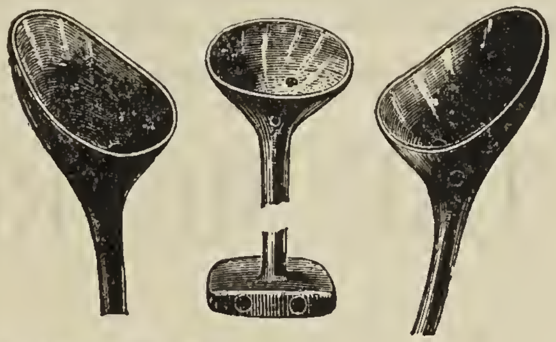

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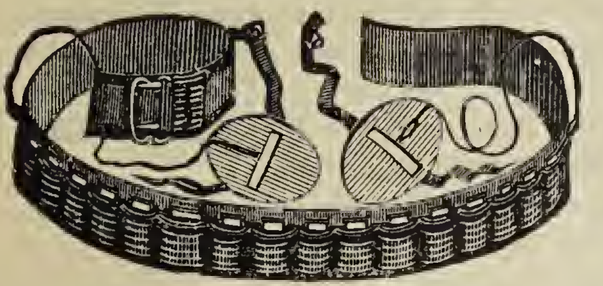

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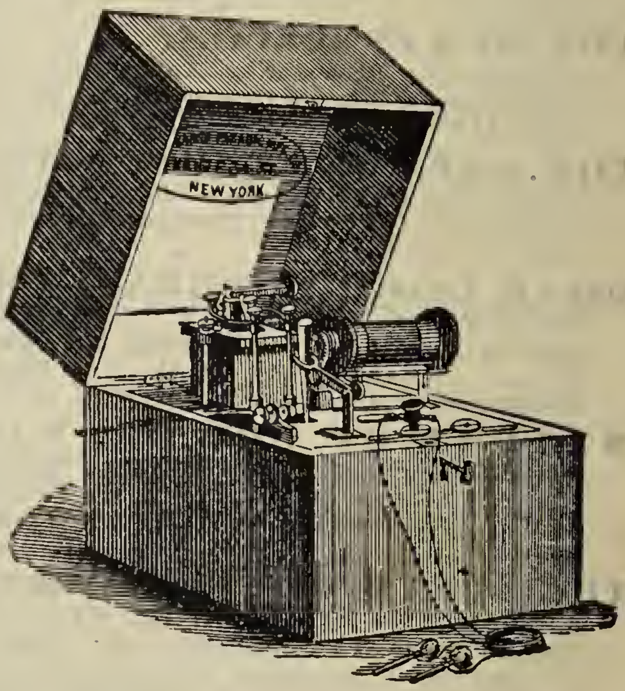

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